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ORIGINAL ARTICLES.

MALARIAL FEVER.*

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Malarial fever, as described to-day, is classified into intermittent, remittent and pernicious malarial fever, and malarial cachexia—all depending upon the same cause, a miasmatic poison. There is one feature common to all of these except the last, and that is fever which remits and returns periodically. The malarial poison is widely distributed over the earth's surface, both in northern countries and in the tropics, and in regions both dry and moist, but certain conditions of heat, moisture and vegetation greatly encourage its production. High annual temperature produces the more pernicious forms of malaria while more moderate temperature predisposes to the milder forms. Its effects are also seen at high elevations, as in the table lands of Castile Spain and the eastern slopes of the Andes.

The malarial poison is certainly of a very peculiar nature; a person may move into an affected locality and not be affected by the poison, then he may move to another locality known to be free from the disease, and in a period of time, from a few days to even years afterward, be brought down by its harassing symptoms. Some are affected in a very short time after exposure, others not at all. We should conclude from this that the malarial poison is not simply a gaseous emanation from decomposing vegetable matter, for no such inorganic substance is capable of producing fever of a remittent type, or

of remaining latent in the system for a length of time and then breaking out all of a sudden.

The only hypothesis which would seem to explain the various manifestations of the malarial poison, is that of the existence of an infective specific organism inhabiting the soil and capable of growth when introduced into the body through the respiratory or alimentary tracts. To demonstrate this hypothesis then, we have only to prove the existence of such an organism. In 1879, Klebs and Tommasi Crudeli announced the discovery of a bacillus supposed to produce malaria. It was found in the soil taken from the Roman Campagna and grew on gelatine and other media in the form of long filaments composed of short joints. Their observations have not, however, been confirmed. In 1880 Laveran discovered a peculiar parasite in the blood of persons affected with malarial fever. His observations were little thought of till some years later, when his experiments were confirmed by Marchifavi, Celli and Golgi, in Italy, and Councilman, Osler, Sternberg, Dock, James and others in this country. The organism thus described belongs to the class Protozoa, or the lowest form of animal life. That it is a true parasitic organism is acknowledged by the highest authorities on Protozoa.

This organism, which has been called the *Plasmodium Malariae*, is found in the red blood corpuscles and also in the blood in a free state. In size they vary from

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one-fourth to nearly the whole diameter of a red blood corpuscle. According to Osler they exist in the following forms: *First*, an unpigmented hyaline body within the red corpuscles which displays active movements. *Second*, a pigmented amoeboid body within the red corpuscles which may increase in size and form. *Third*, a segmenting body in which the protoplasm divides into a variable number of definite small spheres. *Fourth*, crescentic bodies, the so-called crescents, which develop within the blood corpuscles and form characteristic and distinctive structures. *Fifth*, flagellate organisms which may be seen to develop from the intercellular pigment organisms, and from ovoid bodies which are altered crescents. *Sixth*, free flagella. When unstained the bodies are clear and homogeneous in appearance, very hard to detect. In a drop of fresh blood they are endowed with a amoeboid movement similar to white blood corpuscles, changing their form with great activity. The pigmented amoeba derive their color from the red blood corpuscles, which latter they leave in the form of yellow or colorless shells.

The plasmodium is found in all varieties of malarial fever without exception. Its presence accounts in a remarkable manner for the great destruction of the red corpuscles and the deposit of pigment in all the organs of the body. According to Golgi the different paroxysms of the disease correspond to a period of segmentation in the organism; the different types of the disease being due to a predominance of a certain form of the plasmodium. The plasmodium is not capable of life and growth outside of the body on any culture media as yet experimented with, and for this reason inoculation experiments with a pure culture have not been possible. Celli and Marchiafava have successfully inoculated persons unaffected with malarial fever with blood containing the organisms, with the effect of producing the disease. The blood in these cases, which had previously been free from the plasmodii, was found to contain an abundance of the organisms. This, together with what has been said, and the fact that quinine causes the simultaneous disappearance of the plasmodium and of the malarial paroxysms, seems abundant proof that the true cause of all malarial fever is the presence of the plasmodium malarie in the blood.

The pathological changes which occur in malarial fever are dependent in degree on the amount of poison. The most common occurrence is the pigmentation of all the organs of the body, and especially of the capillary walls of the liver and spleen. These latter organs are usually swollen, sometimes to such an extent as to cause rupture.

Accompanying these changes is the great destruction of the red blood corpuscles as before mentioned. According to Kelsch, an ague patient was found to lose one million blood discs per cubic millimetre, in twenty-four hours. When we consider that the standard number of blood discs is from five to six millions per cubic millimetre, this seems like an almost irreparable loss. General dropsy and anasarca, with effusion into the serous cavities is also a concomitant or sequel of malarial fever.

It hardly seems necessary to describe the clinical history of each type of malarial fever, for we are all familiar with the different symptoms which go to make up a paroxysm. Probably the most common form of the disease which we meet with in this locality is that in which the patient complains of pains or aching in the head, back and lower extremities—a tired feeling. Accompanying this are usually loss of appetite, constipation, a bitter taste in the mouth on arising in the morning, a coated tongue and a foul breath, all making up a general line of symptoms to which the name bilious has been applied. The patient may complain of chills or chilliness and a feeling of pyrexia, especially towards evening. This constitutes the symptoms of probably the lightest form of malarial toxæmia.

Next in frequency is the *intermittent* type, characterized by recurring paroxysms at regular periods which consist usually of a chill, during which the thermometer shows a rise of temperature, the hot stage, and the sweating stage, following each other, and lasting variable periods of time. After the patient has been afflicted with these ten or twelve days, they may cease spontaneously without medication, but are very liable to recur; frequent recurrences leading to the condition of malarial cachexia. The most common form of intermittents is that which returns every twenty-four hours, called a quotidian. In this form the plas-

modii are small at first, gradually increasing in size, and showing very active movements. At the time of the paroxysm, they have usually grown in size sufficient to fill an entire red blood corpuscle. They then undergo segmentation or sporulation. A paroxysm occurring every forty-eight hours is called a tertian. In this the blood corpuscles contain small amœboid bodies which gradually grow and become pigmented, and about the time of the chill undergo segmentation into fifteen or twenty separate bodies, aggregating around the central clump of pigment. Very rarely we have paroxysms occurring every seventy-two hours, called quartans. Of ninety-eight cases of intermittent fever in the U. S. Army, only seventeen were quartans.

In the remittent form of malarial fever there is a constant elevation of temperature with paroxysms resembling the intermittent form. In its first stages it very much resembles typhoid fever, but can readily be diagnosed from this by a microscopical examination of the blood. The crescent-shaped amœbæ are largely responsible for this form of fever.

Pernicious malarial fever is somewhat rare in this locality. The common name for it is congestive chills. It occurs in three forms. *First*, in which the patient is seized with delirium or coma, with high fever, hot, dry skin, etc. He may regain consciousness only to be seized with another paroxysm. A third chill is usually fatal. *Second*, the algid form which usually begins with vomiting and prostration. The patient is cold with subnormal temperature. The pulse is weak, respiration rapid, and urine frequently suppressed. The whole disease tends toward adynamia and it is frequently given that name. *Third*, the hemorrhagic is another severe variety of the pernicious remittents, hæmaturia being one of the most prominent symptoms.

Malarial Cachexia, is a condition frequently seen especially in this locality. It occurs in those inhabiting our neighboring bottom lands. Those affected may have no chills at any time, but there is probably always more or less fever. They present an appearance of profound anæmia sometimes, with yellow, sallow complexions and bloodless mucous membranes. There nearly always accompany these, symptoms of gastric disorder, anorexia,

pain, or heaviness in the abdominal region after eating, coated tongue, fetid breath, constipation, etc. We frequently have an association of typhoid fever symptoms with those of malaria. This has been described as typho-malarial fever and, although it hardly seems possible to me that the two etiological factors of the two diseases can unite and produce a disease in common, yet the two causes undoubtedly modify each others action and we can have typhoid fever modified by malarial, and *vice versa*. This combination is frequently seen in the Mississippi Valley and constitutes under the name of typho-malarial fever, one of the most frequent of vernal and autumnal diseases. The association of symptoms may exist in a good many forms, but probably the most common is that in which the patient is anæmic, feels generally weak and languid, with headache and a tired feeling in the lower extremities. There may or may not be pain over the abdomen, with iliac gurgling and very rarely an eruption of rose colored spots on the chest. There is evening rise of temperature, sometimes epistaxis, frequently low muttering delirium with dullness of the special senses, bowels usually constipated, anorexia and the general symptoms which we call typhoid. In fact, to my mind it is typhoid fever but it is undoubtedly modified by the malarial poison. Such cases usually respond well to quinine which strengthens my belief in their malarial origin.

In the matter of treatment we know how Sydenham, over two hundred years ago, cured intermittents with Peruvian bark. The size of the dose as given by him was, 40 grains of the powder every four hours, which represents about $1\frac{1}{2}$ grains of the combined alkaloids or about one grain of quinine. It is remarkable that for two and a half centuries this drug has been used as a specific in this disease, but it is undoubtedly entitled to first rank. The form now most generally used is the sulphate of the alkaloid quinine. It has been found that one grain doses of this given three times a day, will stop nearly every paroxysm of ague, but as larger doses are much more sure to stop them, it is the common mode at present to give from 20 to 40 grains a day for the first few days and smaller doses continued for some length of time afterwards.

As to the time of administration physi-

cians differ greatly. It is my plan to give from 10 to 20 grains of quinine 4 hours before the expected paroxysm. If this can be done, the attack will nearly always be aborted. If seen right before or during the chill, this may be stopped by a teaspoonful dose of chloroform. This frequently produces quiet refreshing sleep and relief from further paroxysms. Pilocarpine, grains one-fifth hypodermically, or morphine sulphate, grains one-fourth, given right before or during the chill will also frequently stop it. During the hot stage the patient is made more comfortable by sponging the body with cool water. Following this, quinine should be given in five grain doses every four hours, till the patient shows symptoms of cinchonism. The remedy should then be reduced to two or three grains, three times a day, and continued for two or three weeks, and combined with iron if there be anæmia. Quinine is best given in solution with a mineral acid, preferably aromatic sulphuric acid, but the most prevalent form here is to give it in capsule. This usually answers very well, but its administration in this way should be followed by a small quantity of dilute hydrochloric acid to insure the dissolving of the gelatin coating. In the pernicious form the great indication is to cinchonize the patient as quickly as possible. This is best done by the hypodermic injection of quinine bisulphate 30 grains with 10 grains of tartaric acid, repeated every 2 or 3 hours. Or the amorphous hydrochlorate of quinine may be used in the same manner, or 40 grains of the bisulphate by enema. In the comatose form where there is such intense congestion of the brain and other internal organs, the patient should be put in a bath and douched with cold water. Nitrate of amyl or nitroglycerine are also used to reduce the internal congestion. Simpler means are hot blankets, hot water bottles, and stimulants.

It is well to remember also that pilocarpine hypodermically, or chloroform by the mouth will usually avert an approaching paroxysm. You will frequently meet with cases of malarial fever in which the patient has been taking quinine on his own prescription, in a very indiscriminate manner with little or no good result. These cases are usually benefited by first giving a good cathartic and following this up with twenty or thirty grains of

quinine a day for three or four days, and then giving a tonic, as elixir of calisaya and iron. You will also meet with cases which hang on in spite of large doses of quinine given systematically. In these cases open the bowels freely and give one-half ounce of Warburg's tincture, undiluted, and withhold all drinks. In three hours repeat the dose. The patient soon breaks out in a profuse aromatic sweat and is then usually convalescent. This is somewhat of an heroic remedy, but it is exceedingly valuable in severe forms of the disease. Next in value to quinine is arsenic, preferably in the form of Fowler's solution, five drops three times a day, and increasing until physiological effects are observed. This is a remedy of considerable value in cases of malarial fever of mild grade but long-standing. The oil of eucalyptus, one drachm a day in divided doses, and the picrate of ammonium in one-sixth grain doses, three times a day, are also recommended.

Quinine is contra-indicated in disease of the middle ear, or inflammation of the gastro-intestinal tract. It has recently been recommended to give ergotin with quinine as a preventive of tinnitus aurium. To infants, quinine is best given by enema with starch water and laudanum. To children, by disguising the taste in syrup, or aromatic elixir of licorice, or, what I prefer, syrup of yerba santa or yerbazin. The sulphates of quinidine, cinchonine and cinchonidine are all used the same as quinine, but in about one-third larger doses.

The Treatment of Pleurisy.

M. Trasbot contributes a very interesting paper (*L'Abeille Méd.*) to the discussion at the French Academy of Medicine, treating the subject from the standpoint of the veterinarian. He concludes that: 1. The sero-fibrous pleurisy of animals has nothing in common with tuberculosis. 2. Frequently the relation between its development and chilling is indisputable. 3. It is impossible to liken the sero-fibrinous pleurisy of the horse to an eruptive fever, or to a cyclic disease. 4. Antiphlogistic medication and derivative applications surely exercise an advantageous action. 5. Thoracentesis can be done without danger to the horse, and constitutes a measure to which we may have recourse before the effusion gives rise to asphyxia.—*Can. Lan.*

CLINICAL LECTURES.

PARANOIA.

*HAROLD N. MOYER, M. D., and †HENRY M. LYMAN, A. M., M. D., CHICAGO, ILL.

GENTLEMEN: This patient, a boy, is 13 years old. His mother tells us that he began to act strangely in July last. He imagined that his mother was going to poison him, and that he had yellow fever and tape worms. He has one brother, who is 12 years of age and in good health. His father died of influenza at the age of 47. He was a temperate man. The mother had two aunts on her father's side who died in an insane asylum; no trouble on her mother's side.

You observe then that we have here a family history in which there is a distinct statement of mental trouble in relatives upon the mother's side, sufficiently pronounced to have placed them in an asylum. She states that domestic and financial trouble seemed to be the exciting cause of the disease on her father's side. Whatever the exciting cause the trouble seems to have skipped a generation; her own generation remaining free from any mental disturbance.

The mental trouble of the boy commenced last July, and there is no cause for it so far as the mother knows, no sickness nor injury of any kind preceding it. The patient worked for one firm nine months and for another firm four months. He has been working in a number of places since July. He would leave his places, saying that the boys kept bothering him. He is nervous, but sleeps well and his appetite is good.

That is the history of the case so far as we have elicited it. Let us analyze some of the chief points, because they are interesting in a diagnostic way. *First*, we have a family history in which there is hereditary mental trouble. *Second*, a generation back there were two cases of insanity. *Third*, the age of the boy, thirteen years, which is the period of development of puberty.

Puberty is the time of life when ner-

vous troubles are very apt to set in, because the nutritional changes that are taking place at that period, are prone to furnish a basis for their development. There is a state of unstable equilibrium during which slight causes may push a person into disease. This is a critical period with the boy.

There was no depression in this subject, no exaltation or melancholia proper, but the disturbance began by a change in the ideas, the emotions not being affected. He conceived the delusion that his mother put something in his food to poison him and, since last July, he has constantly held to that one idea. He has told it to his brother. There is a point in the history which we have not thus far brought out. On one occasion, when the patient's mother brought home a bottle of sweet spirits of nitre, he insisted that it was some drug to put in his food, and that it was the oil of vitriol. She showed him the label on the bottle to convince him that it was not the oil of vitriol, but sweet spirits of nitre. He was not convinced of the fact and said he knew very well that the bottle was falsely labeled.

Connecting these points will give us the diagnosis of a case such as this. His delusion affects the reasoning apparatus, and is one which is logically supported by argument. This case then belongs to the class of reasoning insanities in which the logical reasoning and the judgment are primarily affected. Such cases are not accompanied by exaltation or depression, consequently we can properly class this case under the head of *paranoia*, which is a general term given to the insanities which include logical perversions or disturbances in the reasoning apparatus.

In most cases that develop in youth, or later in life, there is hereditary disease, as we find in this case. In the absence of a family history, we could assume a neurotic heredity in almost all of these cases, but when we have it distinctly stated, it aids materially in the diagnosis.

There is one form of insanity that

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might be confounded with it, and that is the so-called hebephrenia,—the insanity which develops at the period of puberty. It is called by some writers the insanity of pubescence, and has some striking peculiarities. I do not regard this case as one of hebephrenia, because in that condition faulty ideas are not so fixed and are not so thoroughly reasoned out as they are in this instance. The patient has some of the clinical appearances of hebephrenia.

Note the rather fixed attitude of the head to one side. He keeps it in that position and scarcely moves it. But the mental condition, with the mode of onset, and the logical perversion, point conclusively to *paranoia*.

Some writers do not make any distinction between *paranoia* developing at this age, and the insanity of pubescence. I think it is incorrect because the insanity of pubescence is a favorable form of insanity, while in a case of *paranoia* with distinct logical perversion, there is not the same tendency to get well. The disease remains stationary or gets worse. The patients always have certain logical defects in their mental make-up. It may be another form of mental trouble of the melancholic or exalted type. A clinical picture of hebephrenia is a variable one, whereas *paranoia*, developing at this time, presents constant features and has a different prognosis. These considerations lead me to say that this was a case of *paranoia*.

The prognosis is unfavorable. Let me again speak of a point or two in the history aside from the logical perversion and the distinctness with which he holds to the one delusion mentioned, and finds reasons for supporting it in various external circumstances and surroundings.

The history of this young man's employment is interesting. He was employed nearly two years ago for the first time, being then eleven years of age. He worked nine months in one place; the next place he worked only four months; then he ceased to have regular employment, and the present trouble developed. In every case of *paranoia* that has come to this clinic, we have found it distinctly stated that the patient never remained long in one place. They develop ideas and delusions regarding their surroundings and fellow workmen until they are driven from one place to another. They are rarely discharged. The employers of

this boy have been satisfied with him. He has always done his work well. He has had five or six places since last July, but was not discharged from any. He left simply because he developed delusions regarding those around him.

The essential condition in *paranoia* is a perversion of the reasoning faculties, the emotions remaining but little, or not at all, affected.

REMARKS BY PROFESSOR LYMAN.

The case which Dr. Moyer has just presented to you is an excellent illustration of the manner in which persons develop mental disorder at the age of puberty or later in life. I remember the case of a young man who came under my observation. He was a little older than the patient before you, and his father was a man of wealth. The father came to me in the greatest distress, saying he had discovered that his son had for some time been engaged in petty thieving. There was no reason for it as the young man had a liberal allowance of money. On making an investigation, the father found his barn nearly filled with trophies which the son had brought home and deposited there. In walking along the street he would go into book stores and filch books and other things that were of little or no earthly use to him, and some of which were of no value whatever. He would take them up, put them under his coat, and store them in the barn. The only explanation for such strange behavior was mental derangement. On ordering the young man to an insane institution, and his retention there for a time, he made an excellent recovery. He came home perfectly sound in mind and body and has not manifested a symptom of the disease since.

This young man could give no reason for filching various things. His case was one of insanity of adolescence, dependent upon an unstable condition of the brain.

Dr. Moyer has called your attention to the delusions of *paranoiacs*; that they are fixed delusions that enter into the life of the patient and dominate all his thoughts and actions. Although active manifestations may be suppressed from time to time, still the delusion is fixed, is a part of the patient's being and he cannot get rid of it. No treatment cures it. The patient's health does not suffer; and there may be no history of sickness, disease, or ill health

of any kind; but there is usually a history of hereditary insanity in the family, among the ancestors of the patient—if not of the parents, of the grandparents, or other near relatives. The disease is very apt to skip a generation. The patient is capable of attending to his daily avocation, of conversing logically and consistently, and perhaps with vigor and interest, about everything excepting the subject of his delusion. He is perhaps able to carry on his business in a thoroughly logical, systematic way. These are characteristics of this disorder. It is not because the patient is diseased physically, it is because he was not made right in the first place. He has received from his ancestors a badly constructed brain, and this brain, like all badly constructed instruments, brings out imperfect work. It is not the kind of work that a perfect machine will produce, for the brain, when badly constituted, will be badly balanced, badly arranged and badly interpreted.

I remember a young man who came under my observation a good many years ago. The celebrated actor, Edwin Booth, was assaulted here in a theatre. A man from the gallery fired a pistol at him. He was immediately arrested, taken to jail and subjected to investigation. Mr. Booth and other gentlemen appeared as witnesses. The investigation showed that the young man was eighteen or nineteen years of age, the son of a washerwoman who had a bad family history. He was impressed with the idea that he was a great actor; that he had wonderful histrionic genius. He said that he was the son of Edwin Booth. He was asked how that could be. The lawyer said,—‘Edwin Booth and your mother were not married.’ He replied,—‘That is true, but nevertheless Edwin Booth is my father, and I am his illegitimate son.’ He adhered to that view of the subject in spite of everything.—‘Why did you shoot Mr. Booth if he is your father?’—‘Because he wronged my mother.’ This was his delusion: that he was a great actor, because he was the son of an eminent actor who he believed had wronged his mother; therefore he took the law in his own hands. The young man was perfectly rational in other respects and apparently in good health. He was committed to an asylum, remained there a considerable time, and then somebody succeeded in getting him

out. The first thing he did was to purchase a copy of Shakespeare, and to renew the delusive acts and thoughts that he had maintained before his confinement in the asylum. The delusion is fixed in these cases and dominates the life of the patient, and although it may be suppressed for a time, it will crop out again. When questioned in court as to why he shot Mr. Booth, he said he did not know, but he knew it was wrong, and was sorry for it. ‘Would you do it again?’ ‘No.’ He talked as reasonably as any man who had committed a fault and was sorry for it; at the same time such patients are never trustworthy.

Another case came under my observation, a young man 22 years of age. The other members of the family thought he was insane. He had strange ideas. He had the idea that his father and mother had turned Mormons and had started a Mormon institution in their family. He was very much disturbed about Mormonism going on in the family. I asked him if he really had had these impressions, and he said—‘Yes.’ He had gone so far as to go to the sheriff of the county and talk with him about it. I said to him—‘Do you think so now?’—‘No.’ ‘Are you sure that your father and mother are all right now?’—‘Yes.’

I then had some conversation with the father and mother and told them they must look out for the young man; that his case was a serious one; that if there was any evidence of return of his delusions, or if they found he was not manageable they should have him sent directly to an asylum and put under surveillance there. They did not like that idea. People are prejudiced against institutions of that kind, and when you talk with them about the subject many consider it an outrage upon their dignity. A short time thereafter I picked up a newspaper and saw an account of a murder committed. I learned afterwards that this young man was engaged one day in plowing in the fields, as quiet and peaceable as any young farmer, when all of a sudden he stopped his horse, left the plow, went back to the house, took his gun and shot his mother and sister and laid their bodies out on the piazza. The explanation he gave of it was this: That he became impressed with the wickedness of his family, with the Mormonism that was going on,

and while he was plowing he could not resist the impulse to go and execute divine justice upon the offenders.

So you see the delusion may be sup-

pressed or eradicated from the mind of the patient for the time being, yet there is no certainty that it will not recur and dominate his life eventually.

COMMUNICATIONS.

CASES SHOWING THE EFFECTS OF IMPACTED CERUMEN IN THE AUDITORY CANAL.

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In the last sixteen years it has been my lot to come across a great number of cases of body and mental discomfort which were found to result from the presence of cerumen impacted in the auditory canal, and which were promptly cured by the removal of the offending matter. The text books have little to say of this subject, yet I am satisfied from my experience that many cases of both mental and physical anguish result solely from this cause and might be readily cured if the proper steps were taken to search out the cause of the abnormal symptoms. In the sixteen years which cover the time of my practice I have observed not less than two hundred of these cases, probably a greater number. Some of them had actually been under the care of alleged aurists who somehow failed to see what was quite evident to the unaided vision of an ordinary practitioner, that the ear canal was quite filled with cerumen.

My purpose in presenting this paper is to show some of the principal symptoms that I have observed, leaving it to abler hands to point out the nervous paths through which the various reflexes make themselves manifest. The chorda tympani and its relations to the other cranial nerves may possibly explain in part some of the phenomena observed.

My first case was that of a young man of twenty-five, who desired my services on account of what he termed a "spell of biliousness." As I entered the room and he rose to meet me I noticed that he reeled and staggered as if drunk. I failed to find any evidence of indigestion or fever, but did notice that he was rather hard of hearing. A close examination of the ear, with the aid of a paper funnel showed that

the ear canal was loaded with wax. The removal of this was followed by instant relief. I found little reference to this trouble in any of my text books, but it was now evident to me that here was a probable cause of trouble that might easily be overlooked.

Case two was a musician in a cowboy circus band. As the procession passed my office I saw one of the riders reel in his saddle, and immediately dismount, covering his eyes with his hands. Shortly after he appeared in my office, asking for something to relieve his dizziness. He had been getting dizzy each day, and now he said that it had reached a point where he must have relief or give up his occupation. His hearing was so badly impaired that he could not hear a watch placed against his ear. My suspicion of hardened ear-wax was soon verified, and his hearing was found to be as good as ever.

Case three was a lady who had been in the care of an alleged specialist of Washington, D. C., for two years previous. Her complaint was that she feared she was about to lose her mind. A half hour after retiring she would find herself awake and in a state of mortal terror and oppressed respiration. This would happen several times in the course of the night, and gave her good grounds for her belief. I was ten miles from my office and had only a head-mirror of my ear outfit, but a couple of hours' work with a speculum improvised from a scrap of tin, and a hook made from a hat-pin removed a most astonishing collection of ear-wax and effected a complete cure.

Cases four and five were both men of mature years, and were supposed to be

subject to some form of epilepsy. Their accounts of the mode of invasion did not correspond with that of epilepsy, and in both cases I tried the effects of a lively vermifuge to test the question as to whether tape-worm might not have something to do with the trouble, but I had only negative results. Since an intense vertigo was a prominent symptom I investigated their ears and in each case found a hard, flinty mass of wax filling the *left* ear and pressing against the ear drum. Where the plug rested the ear canal was raw and granulated. These cases came to me about two years ago and I am still waiting for a recurrence of the epileptiform attacks.

Case six was an eight year old girl, active and fond of playing boy's games. After playing furiously for a half hour she would become suddenly faint and have to lie down to avoid falling. From each ear there was extracted a cigar-shaped roll of exfoliated epidermis, and that was the end of the trouble.

Case seven was a boiler-maker, aged thirty. He was brought to me one morning at two o'clock in a state resembling melancholia with a dash of delirium tremens. His conductor told me that the night before he became so wild that four strong men could scarcely control him, and the patient himself volunteered the remark that he was losing his mind. This, by the way, is a common belief of this class of cases, and I regard it as almost pathognomonic. An hours' work with pick and syringe removed a huge quantity of wax from both ears and resulted in a complete abatement of all symptoms.

These are only a few of the cases that I have met and are selected merely as illustrating the more prominent symptoms that result from the presence of impacted cerumen in the auditory canal.

I have noticed that impacted cerumen makes itself felt most when the air is heavily loaded with moisture. The wax is hygroscopic and at such times absorbs enough water to increase its bulk and produce vertigo. I have under observation now a young man who has been suffering for four months from a gradually increasing right hemiplegia associated with intense vertigo and a mental condition very nearly resembling dementia. I found that his hearing was variable, and acting

on that suggestion removed from his *left* ear a tightly impacted, extremely hard and black mass of cerumen, and from the right ear a softer mass encased in pus. Where each mass rested the ear canal was eroded and exquisitely painful. The immediate result was the disappearance of the vertigo, but it will take time to tell whether or not any other result will follow.

Occasionally I have found from one to three forgotten cotton plugs, exhaling an odor of laudanum and sweet oil, packed tightly over a mass of wax that had caused the trouble which they were intended to relieve. Buttons, beans, grains of corn and wheat, and in one case a stiff bristle, were found to be exciting causes.

The most effectual tools for the removal of these offending bodies are few and simple.

Gruber's ear specula, a two quart fountain syringe filled with a weak solution of bicarbonate of potash and fitted with a glass nozzle, a small pick with a hook $\frac{1}{8}$ inch long, and a snare about $\frac{1}{4}$ inch in diameter made of fine piano wire answer all purposes.

A tin spout to hang to the patient's ear for the purpose of conducting away the water used is convenient.

The influence which foreign bodies and impacted cerumen have in producing functional affections of the brain and nervous system is well worth investigating. Dr. Jos. Rogers, Superintendent of the Northern Asylum for the Insane at this city, has set on foot an investigation of the condition in this respect of the patients under his care, but has not as yet gone far enough to declare any results.

I am satisfied that not less than ten per cent. of the population of adult years, if examined, would show impaired hearing as a result of the presence of impacted cerumen, and that fully half of this number would suffer more or less from vertigo. As a rule there is nothing to call the patient's attention to the ear itself as the possible source of the trouble. The hearing of one ear is usually retained in part, so that the loss of function in the other ear is not noted.

Some writer has recently called attention to the fact that a great many cases of supposed "cramp" (which is the cause usually alleged in case of death by drowning) are in reality cases of aural vertigo. I have often experienced a feeling of

vertigo and most intense bewilderment from getting water in my ears when I have been swimming, and I can readily

understand how the effect of an ear plug might be enhanced to a dangerous degree under the same circumstances.

CHRONIC INVERSION OF THE UTERUS.*

W. L. BRASIUS, M. D., GALLATIN, Mo.

Aveling says this condition occurs once in 100,000 births. Reeves and Madden find it less frequent, and in the Vienna Lying-in-hospital we have but one inversion in 280,000 labors. When we remember that thirty per cent. of the recent cases die from shock or hemorrhage, chronic inversion of the uterus is indeed a rare condition. And yet not so rare as to be without interest to the general practitioner. If I can offer a suggestion for the successful treatment of this condition the report of the following case will have served its purpose.

Mrs. A., aged 44; had carried an inverted uterus, with all of the attending suffering and dangers, since the birth of her only child *twenty-five years* ago; losing an incredible amount of blood at almost every menstruation, she had become a confirmed invalid. For the last five or six months much of her time was spent in bed.

On July 28th, 1892, at 11 A. M., with bladder and rectum empty, I cleansed the vagina with warm carbolized water and mopped the entire endometrium—which was very vascular—with a fifty per cent. solution of carbolic acid in glycerine and applied the sigmoid repositrator devised by Dr. Aveling.

The instrument, with about two and one-half pounds pull on the rubber bands, accomplished restoration by 6 P. M. July 29th, (thirty-one hours). Ten of these hours were lost by allowing the perineal bar to rest too far backward, directing the pressure anterior to the axis of superior straight. I removed the repositrator and tamponed lightly with iodoform gauze. At 7 A. M., July 31st, (thirty-six hours) uterus was found re-inverted. Applied repositrator, and it turned again in twelve hours. I now removed the Aveling repositrator and on a

similar sigmoid rod introduced the vaginal pipe of an ordinary household syringe, wound and filled with gauze for drainage. With this I gained a depth of three inches, elevating the indented fundus which I maintained for ten days, with daily removal and cleansing. Then the patient menstruated, with the loss of about two ounces of blood in five days.

The cervix now closed down and she was on her feet about the house on August 16th, (nineteen days after application of repositrator).

Rectum was emptied by enema and bladder with catheter during the operation. A few small doses of morphia was all the pain-reliever required.

I would suggest that the push of the repositrator be in the direction of *greatest resistance*, which will usually be found in the axis of the superior straight; that the pressure be not more than will accomplish gradual reduction; that when reposition is accomplished it be maintained by elevation of the indented fundus on some kind of intra-uterine appliance similar to the one described. That the most careful antiseptic precautions be observed goes without saying.

From the limited literature at my command I have been unable to find a report of Aveling's method having been used on this side of the Atlantic. The intra-uterine appliance referred to was suggested by the demands of the case in hand.

N. B.—March 1st, 1893. Patient has menstruated regularly and with normal flow up to this time, and expresses herself as having never enjoyed better health.

GOOD ADVICE.—Miss Plumleigh (choking)—Oh, Mr. Dudekin! I—I really think I've swallowed a dreadful fly! What shall I do?

Dudekin—Deah girl, better swallow some fly-papah.

*Read before the Missouri Valley Medical Society, March 16, 1893.

IPECAC AS AN OXYTOXIC AND PARTURIFACIENT.

JNO. J. THOMAS, M. D., YOUNGSTOWN, O.

Two or three years ago my attention was called to an article by Dr. Draper, a British physician, upon the use of ipecac in the first stage of labor. It was claimed that the use of this drug in small and frequent doses not only brought about relaxation and dilatation of the os, but that it actually induced vigorous contractions of the uterus; intermittent in character, differing widely from the ergotic contraction, and very closely simulating the unaided expulsive effort of nature. Determined to put the matter to a thorough and sufficient test, I at once placed in my obstetric bag a bottle of the wine of ipecac—the preparation used by Draper—and now, having closely observed the action of the drug in some scores of cases, feel that the conclusions arrived at should be brought to the attention of the readers of the REPORTER.

My conclusions are these: That ipecac induces a rapid dilatation of the os uteri; that it promotes contraction of the uterus, and that its action is fairly certain and positive in the majority of cases. The administration of ipecac is about as certain to be followed by increased vigor of contraction of the womb as is the administration of ergot. Both drugs sometimes fail, and a cause of failure which I have frequently noted is a loaded stomach; an arrest of the process of digestion and absorption; a frequent condition during labor. In my experience ipecac does not possess the power of *initiating* uterine contraction; but given a case where labor has evidently begun, and where dilatation of the os has made some progress, the pains perhaps feeble and infrequent, the use of fifteen-drop doses of wine of ipecac every fifteen minutes will usually quite speedily bring about more rapid dilatation and greatly increased force of the pains; in other words a decided shortening of the first stage. In some subjects three or four such doses will induce vomiting, when it is wise to suspend the use of the drug for a time. In many cases I have found the effect of but two doses to be so striking as to excite the remonstrance of the patient, and a refusal to take more of what led to a marked increase of her pain.

It is easy to explain how ipecac from its nauseating properties might induce softening and relaxation, thus favoring dilatation of the os, but its oxytotoxic properties appear to have been overlooked by therapists generally. Trousseau urges its employment in post-partum hemorrhage, and Bartholow endorses the practice, but neither claim that it acts by virtue of causing uterine contraction. In retention of the lochia where the uterus was greatly relaxed, I have found ipecac to cause prompt contraction and the expulsion of contents. I have found the remedy to be helpful in retained placenta occurring in miscarriage in the fifth month. Its employment was promptly followed by contractions sufficiently strong to bring about expulsion of the secundines.

Comment upon the frequent usefulness of an agent possessing the properties claimed for ipecac, is unnecessary. Every practitioner of obstetrics has very frequently felt the need of a harmless oxytotoxic, one that can be used during any stage of labor without injury to mother or child. We have this in ipecac. Ergot, of course, has an established value as a powerful excitant of uterine contraction, but its use has narrow limitations even in the second stage of labor; while in the first it is not to be thought of. And yet, I once knew a legally qualified practitioner of medicine to administer an ounce and a-half of fluid extract of ergot within twelve hours, to a woman he imagined to be in labor—the os open to about the size of a five-cent piece. The woman lived through it but the child, I believe, did not. The legally qualified practitioner is still at large—and—but as Kipling would say, "That is another story." Pardon the digression.

Ipecac is more than a nauseant or emetic. It is an oxytotoxic; and a fair trial of its properties in this direction will, I am convinced, lead the practitioner making it to the formation of an estimate of its value no less high than my own.

The normal pulse-rate of Napoleon Bonaparte is said by Corvisart to have been under forty beats per minute.

IS IT CATELEPSY, DIURNAL EPILEPSY (*Petit-Mal*), HYSTERIA: CEREBRAL, SPINAL, FUNCTIONAL OR ORGANIC?

J. D. JUSTICE, M. D., BELLE PLAINE, KAN.

E. M. —, a fourteen year old girl of nervous temperament, had heretofore been healthy and vigorous and enjoyed the romps and exercises usual to children raised upon a farm. Her parents are living and healthy. A married sister and one brother died of phthisis at the ages of 30 and 24, respectively.

During the summer of 1890, the child carried some large watermelons for some distance, and continued to do this daily until she began to feel dragging sensations about the sacrum and lower abdomen. From this time on, while not so active, she was apparently as healthy as ever. No attention was given to the complaint by her parents.

In June, 1891, she complained of feeling badly, and her mother, as was her custom, indulged her in some blue pills followed the next day by a dose of quinine. This latter was speedily followed by "bowel hives." The itching was so severe and protracted that both mother and child became greatly alarmed; the neighbors were brought in "for to help scratch," and finally the doctor was sent for.

Arriving some hours later I found some rise in temperature, the skin aglow, with here and there a hive welt, but otherwise the patient was resting comfortably. From that time until now she would never be persuaded to take quinine. In a few days she was in usual health.

During the following autumn she began to have general muscular twitchings with occasional inco-ordinate movements of hand or arm, mouth or face, not unlike chorea. About this time I again saw her and, owing to choreic symptoms, put her on tonics and recommended out-door exercise and withdrawal from school.

All directions were faithfully carried out, but to no purpose. For in a few weeks she began to have paroxysms each evening. These lasted from sundown until ten o'clock and often until midnight, and during them she lost all self control. She could not sit, lie or stand and made all sorts of maniacal demonstrations. If put to bed it required strong hands to keep her from injuring herself by thrashing

herself against the wall or bed. These paroxysms occurred daily for nearly a month, when all the more frantic symptoms abated. But when she was put to bed, no matter how late, the general jumping and jerking of muscles began. No remedies appeared to do the least good, but after from two to six hours she would quiet down and sleep calmly until nine or ten o'clock the next morning, when she would awake refreshed and to all outward appearances perfectly healthy. Her appetite was good; she suffered no pain; there was no paralysis nor fever, and she grew fat and developed as any girl in sound health.

During the spring of 1891, menstruation came on and while at first irregular, soon got normal. She could walk with closed eyes to an object in a known locality but could not stand steadily with eyes shut. There was no abatement of her last symptoms after the establishment of her menstrual function, but within the past six or eight months they have materially changed. This brings us to January, 1893, the date of my last examination.

For the past year her menses have been regular and of a normal character. Lungs, heart and spinal column were sound as in health; body appears symmetrical, chest full, mammary glands developed proportionately to age; she is able to sleep and eat well, but after sunset each day she could not walk unless supported by a chair or the walls of the room.

I entered the family sitting room precisely at 5 P. M. on the day of my last visit and was greeted by the girl and her mother. The girl walked about the room in a perfectly normal way, but when requested to close her eyes and walk to a known object she could not do it—could not take two steps forward without falling. When requested to stand with her eyes shut, she would fall like a chunk of wood; but she could go about the room as before when her eyes were open.

A rest was now taken and our conversation turned to other topics. At sunset I asked her to walk. She replied "I cannot; the spell is on." I asked her how she

knew, and she stated that a dull ache always occurred in the front part of the head and forehead. If outdoors at play unmindful of the time, she felt this head symptom, she would run to the house, and, if too far away, she would fall to her knees and complete the distance by crawling. I asked her to try and she managed to get to her feet and walk sideways along the room supported by the wall. I endeavored in every way to get her to walk properly, but could not.

Muscular co-ordination is completely at fault. Neither can she walk if personally

supported, as she says holding to a person or allowing them to hold her causes her to lose her balance on account of dizziness. While allowed to sit she can use her hands as well as ever. She plays games, knits, reads, sews or converses and no one would suspect her condition.

There has never been anything like a convulsion or paralysis. Her tongue is clear, and no tender spots can be found.

A number of physicians have seen and proposed to cure her, but she continues to resist remedies and to remain a puzzle, at least to me.

SOCIETY REPORTS.

SURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting February 13th, 1893.

Dr. J. M. Mathews, President *pro tem*, in the Chair.

STRANGULATED FEMORAL HERNIA; RESECTION OF THE GUT AT THE END OF ELEVEN DAYS; END TO END ANASTOMOSIS; WOLFLE'S METHOD MODIFIED; RECOVERY.

[Abstract.]

DR. AP. MORGAN VANCE: I was called January 30th, 1893, by the attending physician to see K. G., aged 33; domestic; giving the history that eleven days previously she was taken sick suddenly with vomiting, followed by purging; purging ceased early first day, vomiting continued until seen by the writer. Evidently thorough examination had not been made by the attending physician on account of the extreme modesty of the patient. Closer investigation revealed strangulated femoral hernia of the left side. The patient gave evidence of extreme exhaustion, pulse being 150, the temperature, according to the physician in attendance, sub-normal. No previous history of hernia could be obtained and the patient had never been seriously ill before, having occasionally suffered from "bilious attacks" of short duration.

Nitro-glycerine, one one-hundredth grain, was administered hypodermically at

once, and patient removed to the Norton Infirmary where, after slight preparation, operation for the relief of her condition was begun.

The tumor was found to be about the size of a hen's egg; sac contained half ounce of very dark fluid; sac was much thicker than is ordinarily found in a recent hernia, so it is probable that the hernia had existed without the patient's knowledge. The very tight constriction was relieved by the hernia knife, and after thorough irrigation with sterilized filtered water, the intestine was carefully drawn out, when one large perforation discharging fecal matter was brought into view. The intestine was sphacelous in the line of constriction which included a large portion of the convexity, the mesenteric border not being involved. This line of slough was fully four inches in length. Resection was immediately determined upon, and an end to end anastomosis decided to be best suited to the condition. Eight inches of intestine were quickly removed with scissors; instead of clamps being used, the assistants making digital compression on either side of the strangulated portion.

There was no hemorrhage and the suturing was rapidly done with cat-gut number 0. During the whole procedure the parts were frequently douched, and

every care taken to prevent infection of the cavity. With some little difficulty the sutured part was returned to the abdomen, the sac being removed high up, and deep approximation sutures applied to the canal. The wound was closed with silk-worm gut, with a gauze drain in the lower angle. The patient's condition at this time was better than when first seen, the pulse being 135 when the operation was commenced, falling to 120 before its completion. The operation was begun two hours after patient was first seen; there was certainly a very decided effect from the nitro-glycerine; the operation occupied fifty-three minutes.

The fact that the patient had continued so long without nourishment rendered her chances of recovery much less, as an element of exhaustion had to be considered and combated. Vomiting continued several hours after operation, the substance being a greenish watery fluid. Hypodermics of morphia were given as needed for several days. Twenty-four hours after operation patient received and retained two drams of wine and appolinaris water; afternoon of the same day she was given wine and beef peptonoids. Morning of the third day she was given an enemata of water, one pint, which was returned slightly colored. Later, same day, an enemata of epsom salts, glycerine and water was given, a medium sized, partly formed movement resulting. She passed considerable gas and complained of griping pains in the abdomen. The wound was dressed February 6th, and stitches removed. A slight discharge of serum at the lower angle of the wound was noted which continued through the day. Patient's general condition at this time was excellent; continued to improve until the tenth day when she had four large thin stools which were controlled by paregoric and bismuth sub-nitrate.

In every case of emergency of this kind a rapid decision is necessary as to what is best, and this depends entirely upon the condition of the patient. To my mind only one of the two procedures is legitimate. If the patient is *in extremis* and plainly unable to withstand a prolonged operation the production of an artificial anus is the operation; but if, in the estimation of the operator, the condition justifies it, even to straining a point, the patient should have the benefit of the doubt and

complete operation be performed as in this case.

Either terminal or lateral anastomosis by absorbable rings or plates is decidedly less feasible or surgical as a cœlotomy is made necessary from inability to return the repaired intestine through the small hernial opening. The risk in cœlotomy is in septicizing the cavity, which is rendered *nil* by working entirely through a slightly enlarged hernial opening.

DISCUSSION.

DR. W. O. ROBERTS: Dr. Vance is to be congratulated upon the thoroughness with which the operation was done and the result obtained. I agree with him in what he says with reference to the management of these cases, viz: That where the case has gone so far as to lead us to believe the patient will not be able to stand a prolonged operative procedure, an artificial anus is the thing to do. That would be very easily accomplished and could be done very quickly under the circumstances. But where the condition warrants the procedure I believe the operation of resection certainly preferable. I have only done this operation once—resection in strangulated hernia—and that was in quite an old man at the city hospital. Dr. Rodman assisted in the operation. Patient did well for four days and I thought we were going to get a good result, but on the fifth day after the operation, the patient suddenly grew worse and died quickly. Post mortem revealed the fact that the line of union had given away and allowed the extravasation of fecal matter into the peritoneal cavity. Cases of strangulated hernia after gangrene has occurred, are usually in such condition that very little is to be accomplished by operative interference; the condition of the patient is such that they seldom rally. I thought I was going to have a case something similar to this yesterday. I was called to operate on a case of strangulated hernia that had been treated for colic for three or four days before the true nature of the trouble was discovered, but I was informed upon my arrival at the house that the patient and his friends had decided not to have any operative interference.

Bearing upon this question we ought to impress upon the general practitioner the great importance of earlier interference in

strangulated hernia. In some cases of this trouble, termed by Erichsen "active strangulation," gangrene takes place very quickly, only a few hours being required, whereas in what he terms "passive form of strangulation" it may be several days before the protruded portion becomes gangrenous. I saw a case not a great while ago, where a man had been treated for colic and strangulated hernia was not suspected until he was almost in collapse, still, under operative interference, he came out all right.

Dr. Vance did not state the condition of his patient's tongue after the operation.

DR. A. M. VANCE: The condition of the tongue was very good, with red furrows and red edge.

DR. W. O. ROBERTS: It was probably some septic condition from the absorption of the products of putrefaction before Dr. Vance saw the patient, that caused the symptoms following the operation.

DR. H. H. GRANT: I think there are a good many reasons why Dr. Vance should congratulate himself that he used the method of operation employed, especially because he has a very satisfactory result. I notice in the last number of the *Annals of Surgery* the report of a successful case by an Italian surgeon, in which almost exactly the same operation was done under almost the same conditions. Femoral hernia in a woman fifty-four years of age, with end to end suture of the gut after resection of the gangrenous portion. I think in the progress of surgery at the present day, surgeons have become bolder, and have more or less overcome some of the prejudices which existed a few years ago with regard to the advisability of making an artificial anus after conditions of this kind, rather than do a complete operation. It seems to me if there is ever a time, however, in which it is advisable to make an artificial anus rather than do a resection, it would be in a femoral hernia after gangrene had taken place.

It is undoubtedly a very difficult thing to make this character of a resection, because, it not only takes a great deal of time to get the intestine prepared by this method, but the danger of sloughing of the gut is great, owing to the number of sutures interfering with the circulation; further, the proper approximation of the intestines is not

always easily accomplished, and the probability of the suture giving way and consequent fecal fistula or extravasation of fecal matter into the cavity, is more likely after a condition of this kind than it would be if the operation were done by some of the other methods of anastomosis or resection. Besides when a gangrenous condition of the intestine is present, the general depression of the patient is very great.

For these reasons it seems to me to be the best time to make an artificial anus; or at least the time at which it would be less appropriate to subject the patient to the greater risk and the long operation necessary in the establishment of continuity of the bowel. Of course it would be practically impossible to accomplish intestinal anastomosis in a condition of this kind, without completing extension of the wound and opening the abdominal cavity if the sutured gut could not be returned, and under these conditions it would not be permissible, practically.

Where it is intended to complete the operation by intestinal anastomosis, either by the method of plates or by direct sutures as is more frequently practiced, I should certainly prefer it to the circular suturing as advised by Dr. Vance. I have been able to complete the operation of intestinal anastomosis without plates, in experiments upon animals, in eight minutes and am satisfied it can be done in less time by use of the clamp, a method which I have recently suggested. Using the method of direct suture Abbe claims the operation can be done in less than thirty minutes, and with competent assistance and special surgical skill perhaps this can be done. I should not favor the operation done by Dr. Vance under the circumstances unless there were strong evidences that the patient would likely rally; as under other conditions I do not think we should subject the patient to the complete operation, but should resort to the artificial anus. It seems to me that there is no legitimate criticism that can be made of these cases, because a surgeon at the bedside is the best judge as to what should be done, and each case is a rule of itself. In the case operated upon by Dr. Vance, it is probable the majority of us would have decided as he did and given the patient the benefit of the doubt.

DR. E. R. PALMER: This case recalls to

my mind one detailed by Prof. Bayless several years ago; a case of strangulated femoral hernia in a young woman who was so exceedingly modest that she would not allow an examination. I notice Dr. Vance states that the extreme condition of his patient was due to the fact of her extreme modesty. In the case to which I refer, of course the patient died, and Prof. Bayless in reporting it, presented as a pathological specimen the external genitals removed post mortem with the hymen intact proving the unquestionable virginity of the woman, with the statement that he did so simply in justification of the fact of his non-interference in the case.

DR. W. L. RODMAN: I too wish to add my congratulations to Dr. Vance for his good work in this case. I do not believe there is such a thing as luck in intestinal work. I think he has stated the proposition very correctly and fairly—we are driven to one of two things in cases of this kind. I believe, however, in the majority of instances where the hernia has been strangulated for so long a time, and especially hernia of the femoral variety where the constriction is greater than in inguinal hernia, the condition of the patient will be such as to exclude resection. Such cases should have an artificial anus established. The operation of enterectomy is a very old one, recently given much attention by Ransohoff and others. It has never had a certain footing in surgery. The principal thing in the operation is which method of suture is best; and that seems to be the battle ground over which surgeons have fought more than any other. The majority of operators I think prefer the ordinary Lembert or the Czerny modification; the result in Dr. Vance's case proves the suture he used is as good as any other. Senn, who has done so much intestinal work, uses a suture something after the fashion of Jouberts, where after a section of gut has been removed the proximal is telescoped into the distal end.

Another feature of Dr. Vance's operation was having his two assistants grasp the two ends of the gut between their fingers, instead of using the ordinary clamp of Making. Over this clamp is rubber tubing to prevent injury to intestinal coats. I believe the clamp better than trusting the proximal and distal ends of the gut to two assistants, as by its use there

will be less danger of extravasation of fecal matter into the peritoneal cavity. They also enable one to operate without trained assistants—sometimes a necessity.

DR. W. C. DUGAN: I think the suture Dr. Vance used can be applied more rapidly than any other. The way Dr. Vance has been using the suture is the way it is generally used by operators, simply passing it through the entire thickness of the gut rather than only down to the mucosa. I cannot help agreeing with Dr. Vance that it is simpler than the Lembert or the Lembert-Czerny, and its application requiring less time which is very important in such work.

In regard to the length of time, I think that certainly more than half the time consumed in Dr. Vance's operation (fifty-three minutes) was in cleansing. It seems to me that the operation as described by Dr. Vance, not counting the time necessary for preparation and cleansing, can be done in fifteen minutes. I did the operation, about one year ago in the city hospital, for gangrene following intestinal strangulation, in thirty-two minutes. But the patient was in profound collapse and died without reacting.

I notice Dr. Vance used the hernia knife for opening the sac. I think in these cases it is better and safer to cut down upon the strangulation from without, rather than with the hernia knife underneath.

Concerning the question of an artificial anus or resection in cases of this character, this is a matter that must be decided at the operating table and not by theory. A few years ago most operators would have condemned this operation and favored the artificial anus, but of late there is a strong disposition to go to the other extreme and restore the continuity at one sitting.

DR. A. M. VANCE: I have very little to say in closing. I believe the suture employed by me is the most secure for this form of anastomosis. I have had considerable experience with this modification of Wolfier's method in experiments upon animals; have resected intestine of the same dog twice, the last time fed the dog large quantities of meat and bread immediately after the operation; still there was evidently perfect union of the gut as the dog recovered promptly. In examining the gut for evidence of constriction, where

resection was done I found simply a mere line, perfect union having taken place with no decrease of the lumen.

Fifty-three minutes for this operation was quite a long time, but as Dr. Dugan says, it was from the time I commenced shaving the pudendum until the operation was completed—until the last external suture was applied. I do not think the actual intestinal work occupied more than twenty to twenty-five minutes. I have resected the intestine in a similar case where the constriction had existed eight days, the hernia having been handled very roughly by a charlatan previous to my seeing the patient. In this case I am convinced that the operation of resection was a perfect success; however, the woman died a few days after the operation of sepsis from another cause.

As Dr. Grant has stated, I think the surgeon at the operating table is the best judge as to what should be done in these cases, and no definite rule can be formulated as to whether the mode of procedure should be resection or an artificial anus. I do not consider lateral anastomosis advisable in any case of this nature.

CONTINUED REPORT.

DR. W. C. DUGAN: About seven months ago I reported to this society a case of sarcoma of the kidney, exhibiting the specimen removed. One of the members at the time asked my opinion as to whether the child would live three months. I simply want to state that the patient is still living and there is no evidence of a return of the trouble.

INGUINAL HERNIA AND EPIDIDYMITIS IN A CHILD AGED SEVEN YEARS.

DR. W. L. RODMAN: I saw a case about two weeks ago that is unique so far as my experience goes. I was called about ten o'clock at night, to operate upon a case of strangulated hernia. I found the attending physician at the bedside of a little patient about seven years of age, with the history that he had had a left inguinal hernia for two years. Examining the patient I found the left half of the scrotum red and seemingly a little swollen. I made the diagnosis (although I have never seen a case before in a child under fifteen years of age) of epididymitis in-

stead of strangulated hernia. Upon further examination I found a perfectly reducible inguinal hernia. The inflammation was allowed to subside, when I did a radical operation for cure of the hernia, because the patient was unable to wear a truss; he had tried three or four kinds of trusses none of which would retain the hernia. Then I thought there possibly was also a piece of omentum in the hernia which was irreducible; this turned out to be the case at the operation.

The reason I report the case is to bring forth discussion of epididymitis in a child so young as this. I believe it was due to irritation of the truss which was not well applied. I did Kocher's operation for radical cure and the case has progressed satisfactorily in every respect.

DISCUSSION.

DR. H. H. GRANT: I think it was probably a case of traumatic epididymitis.

DR. A. M. VANCE I have seen several times this condition in children, which I attributed to mal-application of the truss. The truss is sometimes applied over the scrotum rather than over the canal, producing bruising and irritation of the parts, and inflammation results.

DR. W. O. ROBERTS: I saw this case with Dr. Rodman. It was a well-marked case of epididymitis, and I do not think there is any doubt but the pressure from the truss caused it. I know of nothing else which could have produced it, unless it be mumps. By the way, has any member ever seen an attack of mumps begin in the testicle primarily and effect the parotid gland secondarily?

I have seen two cases of epididymitis caused by mumps, where the parotid swelling was so slight as to be hardly noticeable. Strange to say in both cases the epididymitis was on the right side, same side as the mumps.

OPHTHALMIA NEONATORUM AND HYDROCELE; CHILD AGED 10 DAYS.

DR. WM. CHEATHAM: I saw a child some time ago with ophthalmia neonatorum, and the mother called my attention to the swollen condition of the scrotum. The child was only ten days old.

DR. E. R. PALMER: I sent my assistant to see the child referred to by Dr. Cheatham, and he found a pro-

nounced hydrocele. The child suffered with severe ophthalmia neonatorum with a hydrocele, which was evidently due to mechanical causes connected with parturition. My advice was to let the scrotum alone. I do not see why mechanical causes should not produce epididymitis.

Concerning the metastasis of mumps, the man has not yet been born, and the scientist has not yet been found that can explain what that is. I have under observation now a medical student who had mumps as a boy; he had double mumps and double orchitis. He consulted me and wanted to know whether he would ever be able to propagate. He had two testicles each about the size of an ordinary almond. I gave him the same direction that I usually give in these cases, which, by the way, is a very simple one when you want to determine a man's virility; that is, to put a condom half on and have connection and bring the semen to me for examination. He followed my direction and we made a careful microscopical examination of the specimen of semen. In the whole mass of semen we found only one irregularly-shaped spermatozoon. I told the man that he had lost his virility and was absolutely unable to impregnate.

When a man has mumps on the right side it is very natural that the disease should develop in the testicle on the same side. As for mumps beginning in the testicle I have never heard of such a suggestion. I cannot conceive of anything more destructive of virility than mumps.

DR. W. C. DUGAN: I noticed some time ago in the *Medical News Gazette* where several articles, discussing the metastasis of mumps, maintained that there was no metastasis at all; that the testicle was one of the glands of the body, consequently was liable to partake of this trouble the same as the parotid gland, and that the inflammation of the parotid gland is but slightly modified by the complicating epididymitis. So since both glands are involved at the same time metastasis does not occur; that cases on record showed in the course of an epidemic of mumps there would be a certain per cent. of involvement of the testicle without any swelling of the parotid at all. Most writers on the subject report cases which prove beyond doubt the correctness of these clinical facts.

The case reported by Dr. Rodman calls to mind one that I saw about eighteen months ago with Drs. Cartledge and Douglas. There was great swelling of the right side of the scrotum, the skin was very red and it looked as though the testicle was acutely inflamed and about to suppurate, although the patient had all the symptoms of strangulated hernia. We cluded to introduce the aspirator needle to determine if it was the testicle, and it was found to be a strangulated direct inguinal hernia, having evidently existed only a few hours and yet the gut was found to be gangrenous. Operation was performed and the man died a few days afterward.

PERIOSTIAL SARCOMA OF THE JAW.

DR. H. H. GRANT: I have a case to report that I operated upon at the Children's Hospital two weeks ago, for what I looked upon as periosteal sarcoma of the upper jaw, beginning in the alveolar process just underneath the nose, in a child ten years old. A year before, this tumor was about the size of an almond; I removed it with the assistance of Dr. Rodman, and in about eight months it returned. After examining it again, I recommended operation. The family desired that Dr. Vance should see it; he did so and agreed with me, and thought we perhaps could do as much by dissecting the tumor out, scraping the alveolar process with a curette and cauterizing it with a thermo-cautery, as we could in any other way. The situation of the growth was such as to involve both superior maxillary bones, both allæ were involved as high up as the vomer and nasal bones. After discussing the matter we decided that an incision could be made each side of the growth, the tumor carefully dissected out, and the bone scraped, which would at least result in temporary relief. It was clear that no other operation could be done that would promise any relief, without complete resection of the alveolar process of the superior maxillary bone, or at least beyond the articulation of the bones of the nose with the superior maxillary, badly disfiguring the face and mouth. In presenting the matter to the parents I told them that I thought it would be wiser to scrape away the growth as thoroughly as we could, rather than do

an operation which would certainly deform the child for life and, in the event that the growth returned, its complete removal then by the more severe operation would not be rendered any more difficult. After considering the matter they consented to having any operation done that we thought advisable. The conservative operation was done with the assistance of Dr. Vance, and the growth thoroughly scraped away. There was considerable hemorrhage which delayed the work very materially. It was finally completed and dressed, and the child has done very well since. Examination proves the trouble to be sarcoma of the round cell variety.

DISCUSSION.

DR. A. M. VANCE: I agreed with Dr. Grant in this procedure. It seemed to me that the more severe operation, taking away almost the entire front of the face, resulting in much greater disfiguration without, in my opinion, any better chances of complete extirpation of the growth, was hardly advisable in this case and I believe that the operation as performed will result in relief which will be as permanent as by any other operation. It is probable that the growth will return, but it was removed with a great deal of thoroughness and in my opinion the conservative operation was the proper one in this case.

DR. W. O. ROBERTS: As I understood Dr. Grant, there was no involvement of the bone proper, consequently I do not see any necessity for removing a section of it. I think the doctor did everything that possibly could be done.

DR. W. C. DUGAN: If this growth was from the maxillary bone, it was very unusual, especially its location. I presume that it sprang from the intermediate or inter-maxillary portion, and that the maxillary proper was not involved. If such was its location I hardly think it advisable to remove the entire jaw as was thought by Dr. Grant.

DR. W. L. RODMAN: I saw this patient as Dr. Grant says, when he did the first operation, which I think was more than a year ago. The primary operation was very thoroughly done as is shown by the fact that the growth did not recur at once. I have a lingering suspicion that when a complete microscopical examination of this growth is made, it will not prove to

be a pure round cell sarcoma. The round cell variety is the most malignant of all sarcomata; and I am strongly inclined to the opinion, from the apparent slowness of its development and from its situation, occurring either from the under surface of the periosteum or probably from the bone itself, that the growth will prove to have not only small round cells, but will have probably a good many giant and spindle cells. The history of the case indicates this form of sarcoma rather than the round cell variety.

DR. H. H. GRANT: With reference to the suggestion made by Dr. Roberts and referred to by Dr. Dugan: This growth was at least one and one-half inches over the alveolar process of the superior maxillary bone, and evidently sprang from it. Its point of origin and its evident growth was from the superior maxillary alveolar process, one and one-half inches in breadth—three-fourths of an inch each way from the central portion—and the removal of any portion of the superior maxillary bone less than three-fourths of an inch from the central portion would not have taken away the cancerous growth.

With respect to the characteristics mentioned by Dr. Rodman, it occurs to me that perhaps he is a little misled in the matter. While this operation was not performed until a year after the removal of the first growth, still the cancer recurred in five or six months after the first operation, and was considerably larger than when he assisted in its removal. Sarcomata that are not traumatic are usually much slower in their growth. Diagnosis of round cell sarcoma was made by the microscopist, still perhaps it is not very definitely settled.

SARCOMA OF THE JAW—IODOFORM POISONING.

DR. W. C. DUGAN: The morning after the last meeting of this society, I saw a patient from Glasgow, Ky., with a tumor of five weeks standing, on the left side of the jaw. There was some bulging on the face which gave him trouble; he had been treated by the family dentist with poultices, etc., for some time before a physician was called in. The doctor who saw the patient before being brought to this city, made diagnosis of sarcoma of the jaw. He was taken to St. Joseph's Infirmary

where I saw him the next morning after arrival, and confirmed the diagnosis made by his physician, advising removal of the growth at once. The tumor was of considerable size and seemed to be very virulent, consequently I recommended early operation. On the third day after being sent to the Infirmary operation was performed. The median incision was made and the flap turned back from the median line; the jaw was then sawn through and the orbit of the superior maxillary bone lifted out, and it was found that the tumor extended backwards involving the entire fossa. The first step in the operation was tracheotomy. I believe this should be the primary step in all operations of this character; it is very simple and not a very bloody operation.

A peculiar feature is that this patient had a typical case of iodoform poisoning; rapid pulse, high temperature, delirium, jerking, etc.,—one of the most marked cases of iodoform poisoning that I ever saw. The iodoform tampon was removed and the symptoms gradually subsided. He was up about the room on the fourth day after operation, having no pain at all. At the end of the second week he returned to his home feeling well, and we hoped by the operation he had secured a further lease on life. He had been home about four or five days when his physician wrote me that he did not like the way he was getting along; that it was returning along the line of the incision. I wrote him to have the patient come back to Louisville at once, and upon examination I found the tumor was as large as the end of your finger, evidently the same growth but there was none in the line of the incision in the soft palate. Dr. Cheatham saw the case and examined his nose. The growth rapidly extended to the soft and hard palate and all thought of further operative interference was abandoned. His physician is now using Pyocetonin both locally and injected, and I shall report the result.

Upon examination it proved to be small round cell sarcoma.

DISCUSSION.

DR. A. M. VANCE: I have heard of very few successful operations for malignant growth on the upper jaw. I agree with Dr. Grant in the case of alveolar sarcoma, it is almost impossible to prevent

serious disfiguration when the growth involves the upper jaw, provided a complete operation is done. I have refused several times to operate on such cases; they would go away and be operated upon by others, finally returning to be treated until they died, in a few weeks or a few months. In the history of the lower jaw it is entirely different, there we can get rid of it and the patient is liable to go along for some time; but I have never known removal of a malignant growth of the upper jaw to do any good for any great length of time.

DR. H. H. GRANT: It occurs to me that the report Dr. Dugan gave of the operative steps in his case is as nearly the ideal method as could be described. I have seen the operation done very much as he suggested, with the exception that the chisel was used in the median line. I am disposed to favor conservatism in these cases, but of course whenever the sarcomatous growth has extended far enough to involve the soft parts of the bone, as in the antrum or in fact any of the medullary canals within the bone, then the likelihood of anything like a conservative operation in the immediate vicinity is almost out of the question, and as it is impossible to cut wide of such growths in the face it is oftener best to do nothing.

SQUAMOUS ECZEMA.

DR. E. R. PALMER: I have had immediately subsequent to this very cold weather, four cases of face eruption in women of doubtful virtue that have been diagnosed by doctors as syphilitic eruption—diagnosis probably based largely upon the fact that the women were of questionable virtue and therefore liable to this trouble. They came to me with considerable alarm and a great deal of anxiety and stated frankly to me that their doctor had said they had syphilis. They were all of the better class of such women and in each there was history of syphilis, they each had an eczema of the squamous variety, I believe superinduced by the cold weather and the soap they had been using. In two or three of the cases the back, arms and hands were involved. None of the cases were attended with enlargement of the lymphatic glands, nor anything that would point toward syphilis, yet in all four cases diagnosis had been positively made of syphilis. It simply goes to show

the tendency on the part of doctors to take any eruption on women of questionable virtue to be syphilitic. I think we should be exceedingly careful in making diagnosis of syphilis based simply upon an eruption.

DISCUSSION.

DR. A. M. VANCE: Do you not think that some of this eruption was due to cosmetics, etc.?

DR. E. R. PALMER: It may be, I had not thought of that. One of the patients

came back to me with the eruption still on the back of her hands, saying she had gotten all right again until she disregarded my injunctions and bathed a great deal trying to keep clean, then the eruption came back. When this case first came to me the eruption on her face looked very much like pityriasis versicolor. We know that this affection does not affect the face, so of course it was out of the question.

THE WESTERN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Annual Meeting: Kansas City, Missouri, December, 27th, 1892.

[OFFICIAL REPORT.]

DR. T. J. Shreves, Des Moines, Ia., read a paper on "Prolapsus Vaginal."

DISCUSSION.

DR. TODD: The paper of Dr. Shreves is very suggestive and deserves more consideration than time will permit of.

Relaxation or prolapsus of the vaginal wall may be due to a variety of circumstances. It may result from an injury to the perineum—an injury to the deeper perineal structures or to the orifice of the vagina—in which the posterior vaginal wall is weakened and the uterus fails to receive that support that the vaginal wall gives it and, hence, is very liable to undergo some form of displacement.

All relaxations of the vagina are not of traumatic origin by any means, although the perineum may be torn. It is possible that injury to some other part has taken place during parturition; and we very well know that any injury to the vaginal wall or perineum, or to any of the parts concerned in the process of parturition, interferes very materially with the process of labor. An injury of this kind although of slight character—a tear, somewhere we will say, in the vaginal wall—results in the impeding of involution. That is to say, a physiological condition cannot go *pari passu* with a pathological condition. The pathological condition prevents the physiological changes which are to follow. So it happens that with almost any kind of injury during parturition we have an ar-

rest of involution, or a preventing of the involution of the vagina and of the uterus. Then again, we have a certain class of individuals in which there is the strongest tendency to conditions of this sort. They are of flabby muscle; there is a flaccid state of the entire organism. It is, perhaps, an inheritance for, as they say, it runs in families whose members are particularly prone to affections of the mucous membranes. They may not have tuberculosis of the lungs, but they are liable to have bronchial discharges, and catarrhal conditions of the stomach and bowel, of the urinary tract and of the vagina and uterus. They have leucorrhœa without any known cause; the mother had it and the grandmother had it. It is a constitutional condition. In these cases, where the condition is congenital, that relaxed condition of the vagina can be produced by leucorrhœa—as these cases are very apt to be attended by leucorrhœa, and are not apt to be attended by uterine displacements. They are not apt to be—hardly ever, if at all, in primipara, but occasionally happening in multipara. If a woman has borne many children she is very apt to have a relaxed state of the vaginal walls. Ordinarily she does not have any uterine displacement unless there has been a laceration. Those who make many examinations will find every degree of relaxed vaginal walls—every degree of tonicity. In some the muscular fibers are always in a state of tension; on the other hand, in

this class of cases I am speaking of, they are in a constant state of relaxation.

Now treatment for the latter sort of trouble isn't to be done by mechanical means. It is true that the vagina can be so relaxed as to cause cystocele or rectocele with prolapsus of the vaginal wall or prolapsus of the bladder, where one might have occasion to use a mechanical support to keep the uterus up and the vaginal wall on a stretch, because the uterus is very likely to descend in such cases. But in that class the vice is constitutional and the remedy is to give tone to the entire individual, by the use of ergot, arsenious acid or some form of strychnia or nuxvomica, or like drugs.

If I remember correctly, in Dr. Shreves' case there was an existing pregnancy of about two and a half months, and that this relaxed condition of the vagina pre-existed. That, of course, favored some displacement of the uterus because the relaxed vaginal wall allows the uterus to fall back. Dr. Shreves was very fortunate in being able to come out as well as he did. It doesn't always happen so. I remember a case that happened some little time ago, in the hands of one of our prominent physicians who called me in consultation. The lady was advanced in gestation about two and a half months if I recollect right. She was the wife of one of our ministers here. A romping brother suddenly threw himself into her lap and the uterus was forced backwards by the violence done by the child. The doctor was called in and attempted reduction by the ordinary methods but failed. Twenty-one hours had elapsed and in the meantime retroversion had taken place. Although chloroform was given, an effort made to replace the uterus was without result. Placing her in the knee-chest position, continued efforts were made until the woman had become so fatigued that we were compelled to abandon the endeavor for the night—it was then late in the evening. The next morning we again attempted to restore the uterus to its place by all the methods known; we used pressure upon the organ but it was utterly immovable. The uterus had not been displaced more than thirty-six or forty-eight hours. Well, the woman became fatigued and there was considerable tenderness, so I proposed to the doctor in attendance that we introduce a sound into the uterine cavity, which we

did and the woman aborted. Within ten or twelve hours afterwards the uterus had begun to restore itself, and when I returned again, the woman was all right.

But in Dr. Shreves' case, the great relaxation and the great flaccidity of the wall allowed the organ to be replaced just as easily as it got out of place. It went out of place without any violence and was restored without any violence or difficulty.

I hardly need say that the paper of Dr. Shreves, while it is suggestive, covers only a small portion of the complications that we are apt to find in such cases—not those present, but those which may follow. The time comes, in all cases where the vaginal wall is relaxed, that something must be done else prolapsus or some other displacement of the uterus will take place.

If the individual be one of that class I referred to, we should aim to give tone to the general system as well as use local treatment. I am in the habit of resorting to a local support for the vaginal wall until the parts have been restored to their normal condition. One valuable means of overcoming this relaxed condition of the vaginal wall, which so much favors uterine displacements, is found in the application on wool of the fluid extract of ergot in glycerine, used as a pessary. Glycerine has a wonderful power in bringing about compression and tonicity of the parts. Those who use this application will soon discover how difficult, after a few applications, it is to introduce the finger into the vagina. If it is kept up for a considerable time, I have no doubt that permanent tonicity of the parts will be gained.

DR. PRICE: Injuries in parturition predisposing to the complications under consideration, are very instructive.

A gentleman has dropped me a note asking whether I use anesthetics in obstetrics. If you will permit me a word about this, I will answer simply "very rarely." My reasons are as follows: The use of anesthetics in obstetrics favors a world of mischief on the part of the obstetrician. Go to half-a-dozen cases of women in active labor, three of them multiparæ and three of them primiparæ, and none of you are prepared to say that any of them will be terminated in an hour or three hours or six hours. I have

before now, after examining a woman carefully, felt that I could go off and do one or two sections and come back in time; but after examining her during pain and waiting a few moments, I discover that it will, in all probability, be over in half an hour. At other times I have gone off and done one or two sections, and come back in good time.

As to the use of anæsthetics in private obstetrical cases, many interesting stories are told about the use of forceps. One gentleman, saluting another with his bag,—"Forceps case?"—"Yes; reed bird for supper." When you give your anæsthetic you are about to make up your mind to terminate that labor. Now take a primipara and give her an anæsthetic; wait an hour and a half; you prolong your anæsthesia and apply your forceps without knowing to what extent the os is dilated or dilatable, and you split the cervix and perineum that has neither softened nor dilated and pull a head with a least diameter of four inches, over the pelvic floor. That has a direct bearing on the subject under discussion. You burst asunder the ischio-perineal fascias or muscles, or more, in advance of that child's head and predispose the woman to a capacious and relaxed outlet, with cystocele and recto-vaginocele following in most of cases. So I unhesitatingly condemn the indiscriminate, injurious and foolish use of anæsthetics. I know perfectly well from large experience in gynecology and repairing of injuries to the soft parts incident to parturition, that anæsthetics have been at the bottom of much of the post-partum trouble.

Another cause is the early and foolish use of ergot. In mining districts among women attended largely by midwives, the labor begins with ergot, is followed by ergot and finished with ergot, and you will find most mutilations among women in mining districts. Wherever you find midwives controlling midwifery, you will find most frightful mutilations. I have found—and I have given the matter no small amount of study and consideration—for instance in consultation, the doctor will tell me she has been in labor since five o'clock yesterday: and after examining a woman, I tell him to go home, see twelve patients and come back. But he wants to terminate the labor. The patient is walking the floor and pacing

from side to side. The cervix is fairly well dilated, the descent isn't very well marked notwithstanding it is a primipara. I tell him: "Go home and get something to eat, *get your buggy* and drive your practice for three hours and then stop in." That is the last I hear of him. Now I could easily terminate that labor with the forceps, but I should look upon it as a criminal assault, crippling that woman for life. There isn't a single indication—the membranes are intact, the cervix is not dilated, the parts are soft and moist, she is bearing it very well, there is no constitutional disturbance whatever and it is simply a matter of time. Physicians or obstetricians must learn to wait; they must cultivate that happy grace—patience.

Now, sir, with regard to prolapsus or relaxation—it is a very bad term; it does not mean much—the doctor's paper is interesting and instructive, and I agree with him wholly except so far as the injuries of the pelvic floor are concerned—and I don't know that I differ with him there—in predisposing to these protrusions or prolapses of the soft parts, the anterior and posterior vaginal walls. He has beautifully called our attention to the class of cases that are strongly predisposed. We find some young women of relaxed fibre—unmarried women, never having borne a child—with the cervix protruding at the vulva, and we have no solution for the condition except that it is an hereditary tendency and predisposition. Nor have we very much in the way of treatment for the relief of such a patient.

But in those cases of cysto-, and recto-vaginocele, following retroversion and retroflexion, resulting from injuries incident to parturition, very exceptionally do we find a protrusion of this character without finding the ischio-perineal fascias—the pelvic floor or diaphragm, if you please—broken down. In short, if you plant your finger in the right or the left sulcus, you will find nothing resisting in the recto-vaginal region, not even a levator ani. If you plant your finger in the right sulcus and pull it down you may feel some fibres of the right levator ani resisting your finger, but on the left side you will rarely find anything. If you will introduce your finger into the bowel and press out through the vulva you will find that you have nothing but the rectal and

vaginal mucous membranes. The ischio-perineal facias and muscles are all gone. Everything had been crowded up in advance of a child's head and ruptured *post-vaginally*. On the left side you will generally find the injuries the most marked.

The signs of the condition are notable: The patient will sit down and cross her legs or she will stand with her legs crossed, and if you ask her why she does it, she will tell you that it gives her comfort—gives her a sense of support. She loses that sensation of everything coming down and out or protruding from her, by crossing her limbs. If you make compression laterally, posterior to the vulva and anterior to the anus, and push up the perineum, and ask if that gives relief she will say—yes. Again, if you ask if she has a sense of defecating through the vagina when constipated she will say—yes. The resistance of the walls of the vagina is even less than that of the sphincter, the rectocele rolls out before the sphincter yields and thus produces sensations of defecation through the vagina.

Now place fingers in the right and the left sulcus and pass them under the rami of the ischii—and all these cases are about alike except those congenital cases and those of virgins alluded to—and trace the evolution. It sums up a loss of support. Notwithstanding we have had many discussions and much written about the support being from above and about the schio-utero-sacral ligaments and broad ligaments and all that sort of thing, I am not willing to admit that the supports are not largely from below. Take a whole school of vigorous, healthy spinsters who are taking an active interest in domestic duties and social life, and none of them have a descent or prolapsus. But some of them get married, the pelvic floor is broken down and they have a prolapsus. Surely that condition of affairs follows some injury to the pelvic floor that did not antedate marriage. Emmet discusses fully these injuries to the pelvic floor and also discusses the utero-sacral ligaments and the broad ligaments. The broad ligaments are simply reflexions of the peritoneum, and I don't think much of the broad ligaments as I find them, for the support of the uterus.

The doctor called attention to defective involution. Unless the cycle of reproduction is complete, some mischief lurks.

The parturition should be normal and the lactation as well must be normal. At present, there is a tendency to bottle every baby, and I sometimes wonder why the good Lord does not send a barrel of soothing syrup and a bottle with the baby. In all such cases there must be defective involution. There is a relaxed pelvic floor and there is a large and heavy uterus; it descends, goes into the hollow of the sacrum and becomes retroposed and retroverted or retroflexed. With this descensus a deflection follows and there is an obstruction to the return of the venous blood. The uterus becomes engorged and heavier, and this increases the descensus until it becomes a procidentia.

Now if you will redress that uterus, place it at a high circulation level and unload it of its blood, you will, in twenty-four or thirty-six hours, find that you will have a very much smaller and lighter organ. That is just what comes of the knee-chest position and the cotton and glycerine dressing dwelt upon. We have at our command that treatment, that redressing, for a large and retroflexed or retroverted uterus with descensus. Then follow that with whatever you like; but so far as my own work is concerned, I would insist on restoring the supports by one of Emmet's beautiful methods of plastic work—the perineal operation in injuries to the pelvic floor.

You can bring up the pelvic floor and make a woman about as physically virginal as it is possible to make her. And I know from a long experience and the use of every conceivable effort to repair those injuries, that there is nothing in plastic surgery that compares with the methods of Emmet in all these lesions. I simply look upon him as the "father" of plastic work.

One theory in regard to the discomfort that is curious and interesting, belongs to an Indianapolis man, and is that the peculiar discomfort suffered in locomotion or standing is due to a loss of co-ordination. For instance if you will make a woman contract her sphincter, if you will watch the action of the pelvic muscles in nausea and vomiting under ether, you will see there is a condition of asymmetry in the contraction of those muscles. Her discomfort is due largely to a loss of co-ordination in her pelvic floor and pelvic muscles, something like that loss of co-ordination

of the fore-arm in an injury to the flexors or extensors. This Indianapolis man has given a very pleasing solution. I have forgotten his name.

DR. SHREVE: To my mind there was no other alternative than to make a diagnosis of laceration of the superior portion of the vaginal tract from the cervix, from the fact that I found presenting a tumor, soft, yielding, flabby, protruding beyond the vulva at least two inches; that on introducing the index finger I found complete retroversion, with the fundus resting on the rectum and the cervix pointing against the pubis making at least four inches between the point of the cervix and the lower portion of this presenting tumor; and that in the center of this presenting tumor was as perfect an external os as ever I discovered through a speculum. I had no means satisfactory to my mind, of making any other diagnosis than that the superior portion of the vaginal tract had been torn loose from the cervix and simply inverted—turned inside out—carrying the external os with it. As a matter of fact we understand that the point of the cervix is covered with a mucous membrane, and that mucous membrane is reflected up on the side of the cervix and then back again and, passing downward, is inserted into the vaginal walls. Well, my philosophy was that this was torn loose, that the vulva was simply turned inside out, the external os presenting two inches beyond the vulva, and on further examinations I saw no reason to change my diagnosis.

It was the first case of the kind that I ever had any experience with, and I have not been able to find that a like case has been reported. Consequently I brought a report of the case to this society, feeling anxious that the members present should discuss it very fully and convince me, if possible, that I was in error in diagnosis. I am satisfied that all men are liable to fail at times; but in this case I didn't understand how it was possible to make a mistake in diagnosis when there was at least four inches intervening between the external os and the point of the cervix. The case has fully recovered.

When I put back the displaced uterus the second time, I passed my finger around the point of the cervix, forcing the vaginal tube up so as to pass over the neck, and retained it in that position by tam-

poning the vagina with wool. As a matter of course, when all that followed took place, a retroversion occurred, and when I replaced it the second time I had to go through the procedure precisely as I did in the first instance and retain the vagina pressed up firmly on the point of the cervix.

A Shrewd Servant.

An exchange prints the following: An incident which happened a few days ago in this city shows the servant girls are about as sharp as the average run of people. Mrs. — is a married woman who is evidently unable to keep a servant girl more than six weeks. She is overbearing and tyrannical, and makes it intensely hot for the domestic. A few days ago, so the neighbors say, her servant came in and said, as her month was up, she would take her money and go. "My gracious, Maggie, you must stay a few weeks longer. You know that I expect to be sick soon. I will give you ten dollars more a month." "I can't stay ma'am. I have engaged another place." So the hard-hearted Maggie packed her trunk, and an hour later, as she was leaving, she said: "If you please ma'am, I hope the boy will be a fine one." "Why are you so positive about it being a boy?" "Wy sure ma'am, no girl would stay with you *nine months*."

After six months of widowhood, Bridget consented again to enter the married state. A few weeks after she was led to the altar, her former mistress met her on the street, dressed in deepest mourning.

"Why, Bridget!" she exclaimed, "for whom are you in black?"

"For poor Tim, me furrst husband, mum. When he died I was that poor I could'nt, but I said if ever I could I would, and me new man, Mike, is as generous as a Lord."

"Do you believe in the transmigration of souls?"

"Not I. And you?"

"I am convinced of it."

"Indeed! Then what were you once upon a time?"

"An ass."

"When?"

"When I lent you that sovereign!"

CORRESPONDENCE.

NEW YORK LETTER.*

In a recent clinical lecture, while discussing the question of prognosis in chronic valvular disease of the heart, Dr. A. A. Smith, Professor of Practice in the Bellevue Hospital Medical College, made some statements in regard to the effects of the tobacco habit in heart disease, which varied considerably from the teachings of most authors on this point. While admitting the evil of the use of tobacco to a certain extent, he said that it was not always wise to make a patient with any chronic disease, particularly cardiac disease, stop the tobacco habit. The effects on the nervous system of a sudden change from a habit that has been long continued is often more deleterious to the patient than would be the continuance of the habit. There are many cases of heart disease met with in private practice, in patients who are habitual smokers, in which it is noticed that palpitation, dyspnoea, and præcordial distress are excited upon the slightest exertion when the use of tobacco has been shut off, while during the continuance of the habit compensation was well kept and the patient experienced no particularly ill effects from his valvular lesion.

Dr. Smith referred to a young physician whom he knew ten years ago, who had grave valvular lesions and in whose case the prognosis as to time was but a few years; the young man thought that he would take all the comfort he could while he lived, so began a rather immoderate use of tobacco; he is living yet and his prospects are more brilliant than they were ten years ago. Another case was mentioned of a cigar-maker who was told that he must cease the use of tobacco, as he had a double valvular lesion; the man stopped the habit altogether for two weeks, during which time he suffered so from dyspnoea and palpitation that he began the habit again with a relief of these symptoms. Dr. Smith said that he now has under observation two Russian ladies who contracted the cigarette habit in their native country; both have organic heart dis-

ease; as long as they continue the cigarette habit they experience no severe results from their heart disease but, as soon as they attempt to break away from the habit symptoms of loss of compensation and of beginning predominant dilatation are observed. The professor did not wish to convey the idea that the cases mentioned above were typical ones, or that the use of tobacco was justifiable in all cases of heart disease, or even in the majority of them, but simply wished to show that tobacco was not contra-indicated in all cases, as well as that a bad prognosis is not to be made in a patient with valvular lesions on the ground that he is addicted to the use of tobacco.

* * *

A couple of cases of septic infection following the very slight operation of removing corns were recently reported at a meeting at the Academy of Medicine. One of the patients was a young man who had pared his own corns, using a common knife, and of course paying no heed to aseptic precautions. In a few days fever and symptoms of septic infection set in, with great pain and swelling in one of the shoulder joints. The patient was a rheumatic and the symptoms were thought to be of a rheumatic nature; salicylates were given and anti-rheumatic treatment carried out, but failed to relieve the symptoms. The swelling in the shoulder continued to increase; an incision was made and a large amount of pus evacuated. The patient was seriously ill for two months.

The other patient was an elderly lady who had several corns removed by a chiropodist. In a few days fever, muscular pains, and marked nervous prostration set in. A swelling soon developed at the site of a contused wound on the arm; this swelling was opened and a large amount of thin, dark-colored pus turned out; pus had extravasated between the muscular planes and in the subcutaneous cellular tissue of the arm; the patient gradually grew weaker and in ten days died.

*Special Correspondent to THE MEDICAL AND SURGICAL REPORTER.

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SATURDAY, MARCH 25TH, 1898.

EDITORIAL.

PRACTICAL CLEANLINESS.

Abdominal surgery has about settled the question as to the necessity of chemical solutions, or so-called germicides, in practical surgery. Some eminent general surgeons, who still corrode their hands with bichloride and like reagents, admit it is done mostly to satisfy Mrs. Grundy. The abdominal surgeons who are now achieving the best results use nothing but boiled clean water in their work. This greatly simplifies matters.

Theories are worthless when contradicted by every day experience. We may marvel much over the wonderful array of bugs and bug-ptomaines turned loose upon the surgeon and his patient by the tireless German microscopist; but, so long as the application of hot water alone gives such good results as it does, we need not consider the desirability of cornering the market in any of the many bug-poisons foisted upon us by the germ theory.

It is a great relief to the accomplished and experienced surgeon as well as to the learner just on the threshold of the art, to be able to cut loose from the slavery of

antiseptics and to adhere only to the gospel of cleanliness.

Of course, one can go too far in the protest against a system deemed false and cumbersome. When Lawson Tait held his silkworm gut sutures in his mouth while making a perineorrhaphy merely to show the Germans his contempt for their germ theory and its attendant germicides, he violated a canon of *asepsis* as well as of *antiseptics* and laid himself open to just criticism.

A system often becomes top-heavy and falls by its own weight. The industry with which the biologist is constantly adding species to the number of pus-producing and infecting micro-organisms all ready studied, begins to set one thinking that, when these little enemies of mankind exist in such countless myriads of an infinite number of species all ready to pounce upon the helpless and injured, creation is a failure. Pope's well known verse should read "A bugless man's the noblest work of God."

In fact the endless invention and multi.

plication of pathogenic microbes becomes practically a strong *reductio ad absurdum* argument for their harmfulness.

It is laid down as a rule in our text books that pus can exist only in the presence of moisture, heat and bacteria. But a fourth factor is equally necessary; that is, necrotic or devitalized tissue. Hence bacteria are looked upon by some scientists as mere scavengers of the system, helping to get rid of material destroyed by some process either chemical or traumatic. That they become harmful only when their products become so abundant as to furnish new pabulum for their own sustenance, by overwhelming vital

processes in tissues rendered less resistant by causes foreign to germs of any kind.

A rule of conduct or a method may be essentially correct although founded on, or originating in, a false theory. This is conceded of the routine of antiseptics. Instead of destroying matter inimical to life it has merely washed it away by the fluid holding the germicides in solution.

Thus out of the chaos of Antiseptics has gradually evolved the simplicity of Asepsis. The idea now obtains of removing the infinitesimal sources of sepsis with soap and water instead of poisoning them and the patient alike with chemicals.

TRANSLATIONS.

DEATH IN INFANTS FROM HYPERTROPHY OF THE THYMUS.†

Mussy (*La Méd. Moderne*, January 21, 1893) says that simple hypertrophy of the thymus is rare. Most of the cases of inflammation of that organ are due to hyperemia or to hemorrhage of the size of a pin's head, disseminated through the organ and originating from injury during labor. True inflammation is denied by most of the authors. Friedleben observed it once in a young man eighteen years of age in whom the thymus gland persisted becoming of an enormous size filling the mediastinum, adhering to the pericardium and causing death by suffocation. Syphilis may be a cause of increase in size. Dubois in 1850, noted four observations of purulent thymus in syphilitic children. This opinion, accepted by Depaul, Henoeh, Viederhofen, was opposed by Virchow, who claimed that during fetal life this organ contained a milky juice entirely analogous to pus. Other authors, Depaul, Bednar, have cited cases in which they have noted cysts containing fluid, yellow, and of the dimension of a bean, which they have regarded as softened gummata. However it may be, syphilitic lesions are rare, since Furth in 200 autopsies found

them only seven times, and Parrot even denies their existence completely.

Primary tuberculosis of the thymus has never been demonstrated; secondary tuberculosis although rare, has been recognized several times following invasion of the ganglia of the mediastinum. As to malignant tumors, experience is far from proving the assertion of Birsch-Hirschfeld, who, in 1877, claimed that tumors of the mediastinum, in the form of soft lymphosarcomata, had for their point of origin the thymus gland. Friedleben does not cite any case, and since his work, but two or three well authenticated cases have been recorded in medical literature.

As to whether hypertrophy of the thymus, the causes of which are still surrounded by obscurity, is the origin of the attacks of suffocation known under the name of spasm of the glottis or thymic asthma and which may occasion death, is a much disputed question. In the eighteenth century the thymus had been charged with producing asthma in infants. But it was Kopp who first in 1830, embodied this doctrine. This opinion was quickly attacked in Germany and Italy by numerous writers: Pagenstecher, Wunderlich, Hecker, to cite only the most important.

†Translated for THE MEDICAL AND SURGICAL REPORTER by W. A. N. Dorland, M. D.

In 1855, Hirsch advanced anew this hypothesis, opposed strongly by Fingerhuth, Canstatt, Marsh, who took sides with the view of the nervous origin. In France, the question was but little agitated. Blache, Valleix, Trouseau, all inclining rather towards eclampsia, quickly withdrew when the thesis of Herard appeared in 1847. This eminent physician concluded his observations thus: "The thymus is an organ whose volume and weight are very variable in children in good health—this is dependent upon the constitution of the child. In the so-called thymic asthma the variations of the volume correspond to variations in the constitution, and have nothing to do with the production of the attacks of suffocation." Rilliet and Barthémy also defended the convulsive origin. More recently Weit has returned to the view of thymic asthma, and he has been followed by a certain number of physicians, in Germany especially; Schoele of Dantzig, Soltmann of Breslau, Pott of Halle, Fleischmann, Recklinghausen, Jacobi of New York, etc.

Jacobi, in 150 cases of glottic spasm, noted ten deaths; Soltmann in 425 cases (in ten years), forty-eight deaths; Pott, in 176 cases, fifteen deaths; on an average ten to twelve to the hundred. In these fatal cases about the third of the infants succumbed suddenly. It may be seen therefore, that the prognosis of this affection is far from being good, and it becomes important to avert the possible fatal issue.

Pott, in his memoir published in 1892, gave the results of the autopsies which he had made upon eight children who had died suddenly in an attack of suffocation. The thymus weighed on an average 30 grammes; in one case 40 grammes; that is three times the normal weight. The dimensions were as follows: Length, seven centimeters; breadth, four centimeters; thickness, two centimeters. Moreover, adhesions existed to the pericardium, near to its reflexion on to the large vessels of the neck. Beyond doubt, in this case, there was a marked hypertrophy of the thymus gland; on the other hand the absence of any lesion in the other organs prevented the ascribing to such cause the death of the child.

In all of these cases, here is, from a clinical point of view, how the patient most usually acts: On placing a spoon in

the mouth of the child to examine the throat, it suddenly throws the head back, respire violently, the eyes roll upward, and the pupils are extremely dilated. The lips are cyanosed and swollen as is the rest of the visage. The tongue is pressed against the jaws, bloated, cyanotic and touching the palate. The veins of the neck turgid, the fists are closed, containing the thumb strongly flexed, the forearm is contracted and pronated. The lower extremities are extended, the toes flexed, and the vertebral column slightly curved. Some fibrillary motions in the muscles of the face may be noted, some inspiratory movements that do not suffice to cause the air to enter into the respiratory passages. Then, suddenly, the contracture disappears, the visage pales, the tongue and the lips become livid, and in one or two minutes the infant becomes a corpse. Towards the end of the attack the urine and feces escape, the murmurs of the heart are scarcely audible and the pulse scarcely sensible, and the corneal and pharyngeal reflexes are abolished.

Artificial respiration, tracheotomy, electrization of the recurrent nerves have never succeeded in reëstablishing the vital functions. How does the hypertrophied thymus act in the production of this fatal accident? Is this organ capable of flattening the trachea and so deforming it as to prevent the entrance of any air into it? It is very difficult to adopt an opinion that may stand the test. Scheele has demonstrated experimentally that a weight of 1000 grammes is necessary to produce a complete flattening of an infant's trachea. Here is a more probable hypothesis than that death is due to pressure of the large organ upon the trachea. The distance that separates the sternal fourchette from the vertebral column in an infant is on an average two centimeters, and there is also the thickness that an hypertrophied thymus may attain. In this closed space the enlarged gland forms adhesions with the pericardium, the large vessels and the trachea. Coming in contact with the latter, the two organs unite, and a fatty degeneration of the artificial wall takes place. Little by little the trachea softens, then suddenly, under the influence of a sharp flexion of the head, the trachea is flattened, completely obliterated and the asphyxia commences with

the nervous phenomena already cited.

The thymic tumor may also compress the recurrent nerves, as any other tumor of the mediastinum, and occasion a glottic spasm; it may also give its weight and adhesions to the heart and the large vessels; exercise by compression upon the ventricle or upon the pulmonary artery a sort of cardiac paralysis of which mention has been made in describing the crisis.

The thymus gland, therefore, acts as do tubercular glands in the child by compressing the trachea little by little, finishing by occluding it, by compressing the recurrent nerves, the heart, the great vessels, and becomes for these two reasons (an obstacle to the entrance of air and the circulation of the blood) the point of departure of excitation of the centers and nervous phenomena which are dependent upon them. To conclude, as Sanné has said, there exists, in addition to the eclamptic form of spasm of the glottis, a compression form due to hypertrophy of the thymus, and we may add that in the latter form more especially does sudden death follow the attack of suffocation.

Bi-Lateral Oophorectomy for the Cure of Osteomalacia.*

E. Kummer reports the following case: Patient, aged 39, had given birth to seven children without instrumental aid; the last birth was three years ago. The beginning of the disease was eight years previous, first appearing with pains in the extremities. Since 1886 increasing deformity in the lower extremities. Four months ago irregular and profuse menstruation. Pelvic measurement between the spines 18½ cm., the crista 26, the trochanter 24.5, the diagonal conjugate 7.

Oophorectomy performed February 9, 1891. Recovery with entire disappearance of former pains and complete arrest of the disease. So far thirty-eight cases have been operated for osteomalacia, with but one death and a complete arrest of the disease in all. In regard to the history of this disease, the author coincides with Fehling in that he believes that the nervous system of the genital organs influences the disease of the bones.—(*Revue de Med., de la Suisse*, Rom. xii. 7-92.)

*Translated for THE MEDICAL AND SURGICAL REPORTER, by Marie B. Werner, M. D.

The Treatment of Retention of Cysts of the Tubes by Dilatation of the Uterus.*

A. Zabolotsky reports in an inaugural dissertation, (Petersburg, 1892), observations upon twenty-six patients on whom the diagnosis was made of the retention cysts, in the Clinic of Prof. Slarveansky, of Petersburg, who were treated by dilatation of the uterus. The means for dilatation were laminaria, tupulo or sponge tents, tampons of villiet and the bougies of Hagar.

Zabolotaky believes that laminaria tents produce the best results for dilatation. That the dilatation of the uterus is usually followed by emptying of the retention cysts. In only four out of the twenty-six cases he noticed an increase of temperature. The usual time for this treatment is thirteen days, and the shortest is six days; the patient is compelled to remain in bed throughout the time. Of the twenty-six, ten had cysts on both sides; seventeen were thoroughly cured; three had a return, were treated in the same manner and were discharged well. In five the contraction of the cysts could be felt and the patients considered themselves better. Sixteen of these patients still come to the clinic.—*Schmidt's Jahrb.* Bd. 237, No 1.

The Destiny of a Ligature Used in Ovariectomy after 5½ Years.*

N. Komarewski reports under this head that a patient in whom ovariectomy had been performed 5½ years before and who died during a recent confinement, a microscopical examination of the stump showed the complete absorption or disappearance of the silk ligature.—*Chir. Annalen.*, 1892. Bd. ii., p. 333.

INVISIBLE COLOR.—Professor—Microscopical investigations lead us to believe that there are colors too delicate to be discerned by the human eye, invisible colors, we may call them.

Student—I know the name of one of them, sir.

Professor (surprised)—Indeed! What is it?

Student—Blind man's buff.—*Texas Sift.*

*Translated for THE MEDICAL AND SURGICAL REPORTER, by Marie B. Werner, M. D.

BACTERIOLOGICAL NOTES.

The Distribution of the Bacilli of Diphtheria in the Human Body.

The opinion has been generally entertained heretofore, that the bacilli of diphtheria were localized in the false membrane characteristic of the disease.

Frosch (*Zeit. f. Hygiene* xiii, 1893, pp. 49) gives the results of his investigation of fifteen fatal cases of diphtheria. In five of these the specific bacteria were not found in the internal organs, in the other ten the diphtheria bacilli were isolated from the blood and various organs. The bacteriological examinations were made as soon as possible after the death of the patient. The ordinary method of making agar plates was employed. In some of the cases the bacilli were unusually distributed through the body, as indicated by their isolation from the blood, spleen, liver, kidneys, cervical and bronchial lymphatic glands, lung (when hepatized) pericardial and pleuritic effusion, and the brain. In a few cases they appeared in the cultures from spleen or kidneys only. Babes, Kolisko and Paltanuf, and Spronck are the only observers who have made similar observations in the past. The results obtained by Frosch bring out with clearness a very important fact in the pathology of diphtheria.

The Preparation of Haffkine's Anti-Cholera Vaccines.

According to Haffkine's method protection against cholera is brought about by acclimatising the system first to a weak virus and afterwards to a strong cholera poison. The materials used in bringing about such a condition in the animal body, and the method of preparing the same are described by Wright in a recent (Feb. 4, 1893) number of the *British Med. Journal*. The vaccines consist of emulsions of attenuated and of exalted cholera cultures. They may be of two kinds. An emulsion (1), of the living cholera bacilli (living vaccines) or, (2), of cholera bacilli that have been killed by the action of dilute carbolic acid (carbolyzed vaccines). The living vaccines possess a greater vaccinating power, but the carbolyzed vaccines have the advantage in being perfectly safe to handle or to leave

about. They do not appear to be impaired by keeping, and could be sent out from some central place where they could be made in quantity.

The attenuated cultures are obtained by M. Haffkine by cultivating the cholera bacillus in media which are continually aerated at a temperature of 39° C. When the cholera bacilli have been grown under these unfavorable conditions for some time, they become so weakened that they cause a local oedema instead of necrosis when they are injected into the subcutaneous tissue of a guinea-pig. The attenuated germs can be cultivated indefinitely in agar tubes without regaining any of their lost virulence. The "exhorted" vaccines are obtained by growing the cholera bacilli in the peritoneal cavities of a series of guinea-pigs. As each guinea-pig dies the fluid which is found in the peritoneal cavity is inoculated into a second pig and so on until the virus has passed through a series of twenty or thirty animals. During such a long series it is very difficult to avoid contamination of the virus unless the strictest care is exercised. The cholera bacilli are not sufficiently virulent when isolated from the intestinal discharge of cholera patients.

The emulsions are prepared from the attenuated and "exalted" cholera bacteria, by mixing the surface growth on agar cultures one day old, with sterilized bouillon, two or three ccm. of liquid for each agar culture. The carbolyzed vaccines are prepared in precisely the same manner as the others but instead of bouillon, a five per cent. solution of carbolic acid is used. In these vaccines there are no living cholera germs. The vaccines are injected beneath the skin with a sterilized hypodermic syringe. The injection of the "exalted" vaccine is made about five days after the injection of the attenuated virus.

A Case of Glanders in Man.

The fact that glanders are communicable from horse to man has long been known, but the record of an authentic case in which the specific bacteria were demonstrated in both subjects of the di-

sease, is not of common occurrence. Clement (*The Journal of Comparative Medicine and Veterinary Archives*, February, 1893) gives a full account of a case of glanders in a man in Baltimore, with the post-mortem notes on both the horse and the man. The clinical history given is as follows: "Mr. H., white, age 34 years, was employed as a nurse in a car stable, and also took care of a horse belonging to his brother. He had a habit of biting his finger-nails until the skin would bleed. One day he noticed a swelling on the end of his little finger, which grew rapidly worse and became very painful. An abscess soon formed in the axilla. This was followed by the appearance of sores on other parts of the body, swelling of the nares, hyperaesthesia, and semi-unconsciousness. The attending physician thought that he had a case of septicæmia to deal with, but in consultation the diagnosis of glanders was made. The patient was unable to give an intelligent history of his case and it was not known by the physician that he had attended a horse which presented symptoms of glanders."

After the death of Mr. H. an investigation was made by the State Veterinarian and the health authorities, which revealed the fact that the horse belonging to the deceased's brother showed symptoms of glanders. It was immediately put in quarantine. A few days later it was treated with mallein obtained from the Department of Agriculture. The reaction was decided and the animal was killed and found to have glanders.

Mallein is being prepared under the direction of Dr. Welch, from cultures obtained from a guinea pig that died from the inoculation of infected tissues from the man.

The Differentiation of the *Bacillus Coli Communis* and the *Bacillus Typho Abdominalis*.

Luksch (*Centralblatt f. Bacteriologie u. Parasitenkunde* xii, 1892, p. 47) gives the results of his study of these bacteria. In their cultural characters the same conclusions have been known for some time, but in their morphology he points out a difference not heretofore considered in differentiating these bacteria. The motility of bacteria is due to the presence of minute

hair-like appendages called flagella. On the bacillus of typhoid fever Luksch found as many as from eight to twelve of these delicate filaments, while on the bacilli coli communis he could not find more than three flagella and usually a less number. He also found that the flagella could be stained much more readily on the typhoid germs than on the coli bacteria. The motility of the typhoid bacilli was much more marked, as determined by the examination of fresh preparations, than that of the coli germs. The flagella were stained by the use of Loeffler's method, which consists in treating cover-glass preparation with a mordant before applying the staining fluid.

To Obtain and Mount Crystals of Haemoglobin.

Here is a simple and excellent plan that we have used for many years: Let fall a minute drop of blood on the center of a perfectly clean slip, and let it stand until under a loupe you can see it beginning to dry at the edges. Take a little thick chloroform solution of balsam, or a benzol solution of dammar, and first spin a little ring around the blood, winding up by letting a good sized drop fall directly on the blood so as to completely cover the latter and unite with the ring already spun around it. Now put your slide under a bell glass, and allow it to stand until the balsam is quite hard and dry on top. In summer this will take forty-eight hours; in winter longer, unless the surrounding air is kept warm artificially. When the balsam is dry dip a clean spatula in benzol and pass it rapidly through it, removing the surplus, heat your cover-glass and drop it while hot on the slip, and finish your mount in the usual way. On examining your slide you will find that beautiful crystals of hæmoglobin have formed in the center, and the other elements of the blood have been permanently preserved.—*Nat. Druggist*.

DOCTOR—Troubled with sleeplessness, eh? Eat something before going to bed.

PATIENT—Why, doctor, you once told me never to eat anything before going to bed.

DOCTOR (with dignity)—That, madam, was 1889. Science has made great strides since then.

ABSTRACTS.

ON SOME OF THE TROPHO-NEUROSES ASSOCIATED WITH ABNORMALITY OF THE THYROID GLAND.

Dr. Solomon Solis-Cohen reported (Phila. Co. Med. Soc., Feb. 8, 1893,) and exhibited photographs of two cases of akromegalia, in both of which there was apparent absence of the thyroid gland, and marked skeletal changes in addition to those in the face, hands, and spine. The patients were males, one twenty-five years of age, the other fifty-one years old. In neither case was there any eye-lesion. The case of the younger man had been previously reported to the College of Physicians. In the elder man headache, drowsiness, forgetfulness, thickness and scanning of speech, and excessive polyuria were present. The symptoms had been partially relieved by picROTOXIN, the headache especially. This drug was a vasomotor regulator and useful in many of the conditions to be discussed. It was necessary to say "apparent absence" of the thyroid gland, because only *post-mortem* could absence or atrophy be unqualifiedly affirmed. Embryologically the pituitary body and thyroid gland were intimately related, and it appeared not improbable that the enlargement of the former and the consequent hemiopia and other cerebral symptoms noted in some cases of akromegalia might be due to an attempt by nature to supply the absence of an important structure by compensatory hypertrophy of an allied structure.

A number of cases in which the thyroid gland could not be demonstrated and which presented some, but not all, of the changes found in typical cases of akromegalia were likewise related. In one such case the hands and ears presented marked local asphyxia (Raynaud's disease), while the pain and transient redness developed in the feet upon exertion were suggestive of the condition described by Weir Mitchell under the name of erythromelalgia. In another case, in an aged man, there were cardiac lesions and muscular tremors, with wasting, as in progressive muscular atrophy.

Other cases observed by the speaker in which thyroid atrophy apparently existed were: One case of hypertrophic osteo-

arthropathy with emphysema and fibroid phthisis, in a man fifty years of age; one case of scleroderma with cardiac lesions, muscular tremors and mental changes in a woman apparently quite aged, who insisted, however, that she was less than forty years old; and one case of unilateral spontaneous gangrene and ulceration of the toes and leg (Raynaud's disease), with bilateral spasmodic vascular phenomena in a woman over sixty years of age. In the latter case certain changes in the fingers and nails existed, which in one finger resembled those of akromegalia, in another finger those of rheumatoid arthritis, in another finger those of sclerodactyle, the nails of all the fingers being curved like those of the Hippocratic finger, as in pulmonary hypertrophic osteo-arthropathy. That this latter condition of the nails and finger tips could be ascribed to interference with nutrition through the circulation was held to be shown by the occurrence in cases of cardiac disease without pulmonary or obvious nervous lesion of fingers indistinguishable, and of which pictures and tracings were exhibited.

Taking up conditions of trophic and vascular disturbance associated with enlargement of the thyroid gland, Dr. Cohen briefly alluded to exophthalmic goitre, myxœdema and cretinism, laying stress upon the fact that as, on the one hand, in akromegalia there might be enlargement instead of apparent absence or atrophy of the thyroid gland, so, on the other hand, in myxœdema and cretinism, the goitre might be lacking, while experimental thyroidectomy, as well as the *cachexia strumipriva* that followed surgical extirpation of the gland, proved that the symptoms were due to a functional atrophy of the gland, whether or not there was hyperplasia of the non-essential anatomical elements. Stress was laid upon the varied vasomotor disturbances in all these marked conditions.

In one case of Raynaud's disease an affection, which, so far as the vasomotor phenomena are concerned, is almost an antithesis of Graves's disease, Dr. Cohen

had observed in an anæmic girl, with occasional tachycardia, an intermittent enlargement of the thyroid, just as is observed in certain cases of exophthalmic goitre, and in certain ill-defined cases for which he had proposed the name of *vasomotor ataxia*, which latter could not be called exophthalmic goitre, but in some instances might readily develop into that condition. These latter cases, observed both in males and females, but principally in the latter, and in hysterical subjects more often than in others, showed as an almost constant feature the intermittent presence of hæmocytes in the urine; sometimes, but rarely, transient or intermittent albuminuria as well. In some cases lithuria and oxaluria had been noted, especially in those of rheumatic, gouty, or diabetic families; still more rarely casts or cylindroids had been found. These observations were related with the occurrence of hæmoglobinuria in Raynaud's disease, and of hæmaturia and other hemorrhages, such as purpura, hæmoptysis and hæmatemesis, all of which the speaker had personally witnessed, in Graves's disease; as well as with the occasional albuminuria of the latter, and the polyuria, albuminuria and glycosuria of myxœdema and of akromegalia, and the morbid perspiration and localized œdemas and flushes of all these conditions, and of angio-neurotic œdema—in which latter condition he had also found hæmocytes in the urine during and after paroxysms affecting the throat in one woman and the arms in another. In some of his cases of vasomotor ataxia, a condition which varied much in its severity, from but slight abnormality to such marked affections as those associated with the names of Graves and Raynaud, the author had observed hæmatemesis, with symptoms suggestive of gastric ulcer, anæmia, menstrual irregularities, migraine, transient localized œdema, transient local blushing, permanent dilatation of isolated groups of capillaries and venules, stigmata, local syncope, erythema nodosum and urticaria; in one case there had been transient blindness. In two other cases, in which, however, no thyroid abnormality had been detected, there had been membranous enteritis. Subjective and objective coldness of the knees was marked in one case in which the thyroid was enlarged. In another case,

the first observed by Dr. Cohen in a male, there had been great rapidity of the heart's action and intermittent goitre as well, so that the case might well have been called Graves's disease, and doubtless belonged positively in that category. Strictly circumscribed erythema and factitious urticaria could be readily produced in all these cases by writing upon the skin with a probe, or in some instances applying cold to the part. In a colored woman with exophthalmic goitre the effect was almost startling.

The connection of rheumatism with Graves's disease, and the heredity of both, was too frequent to be a mere coincidence. In certain cases of rheumatoid arthritis the thyroid gland was found to be enlarged, and tracings were shown of the fingers of an old man with rheumatoid arthritis and arthritic muscular atrophy, in which the parrot-beak pad and nail were shown in the terminal phalanx of the thumb, which was hyper-extended, while the sharpened and atrophied terminal phalanges of the other fingers resembled sclerodactyle, and were almost identical with the tracings from the case of Raynaud's disease. Allusion was made to the tetany of thyroidectomy and the tremors of exophthalmic goitre, some cases of myxœdema, the speaker's cases of scleroderma and of Raynaud's disease, and some of his cases of vasomotor ataxia; as also to the occurrence of phenomena like those of Raynaud's disease in certain cases of scleroderma, the anæmia and the extreme susceptibility to cold, which was a feature of all the conditions described. To complete the list of associations observed, and admitting that they might be coincidental, there were many reported in connection with the occasional occurrence of epilepsy in Graves's disease, two cases of the speaker's, in one of which *petit mal* had developed in an anæmic girl with enlarged thyroid and occasional tachycardia, and in the other, a male, with enlarged thyroid, tachycardia and flushed face accompanied the epileptic paroxysm. The not infrequent termination in phthisis of many of the conditions alluded to might have no other significance than impaired nutrition, but the recent observation of hæmoptyses occurring only during paroxysm in one case of epilepsy without appreciable pulmonary lesion, and in one case of local as-

phixia with but trifling signs on the chest and a few tubercle bacilli in the sputum, had suggested the thought that vascular disturbances in the lung might be the determining factor. Finally, attention was called to the success of various observers in treating myxœdema by implantation of a thyroid gland, by injections of thyroid extract, and by feeding with fresh thyroids. It was suggested that the same treatment might be of benefit in many of these varied conditions narrated.

The speaker desired to avoid premature assertion of causal relationship, and had therefore made use of the words "associated with," rather than "dependent upon" abnormality of the thyroid gland, in describing the trophic, neurotic, and neuro-vascular phenomena discussed; some of the complicated associations he had been unfortunate enough to meet with were doubtless purely fortuitous. The tendency of diagnosticians was naturally to discriminate among groups of phenomena presenting similarities, and thus to divide rather than unite. Nevertheless, the student of pathology in its broad sense, must be on the alert for commonality of phenomena, and certainly the very variety of the nutritional disturbances associated with abnormalities of the thyroid gland indicated a profound relationship among them, dependent upon the important metabolic functions of the gland.

The researches of many observers, in particular Horsley, had demonstrated this metabolic importance, and that the secretions of the gland acted in the organism in some way. Dr. Cohen believed that they were in truth chemio-tactic or regulatory, and that individual constitution, heredity, environment, habits, and the like, determined the particular direction in which failure of their function would be manifested. Most certainly an intimate relation existed between the thyroid gland and the visceral nervous system, more especially the vasomotor mechanism. Of course, under the conditions, it was difficult to separate primary from secondary phenomena—the mediate results of the train of action of a mechanism from the immediate results of the influences that had set the mechanism in action.

The main purpose of the paper was to suggest more common observation clinically and at autopsies of the thyroid

gland, so that sufficient data might be collected by a number of observers in order to determine what is accidental and what essential.

"Did Not Know It Was Loaded."

A correspondent from Chicago writing to the *Kansas City Medical Index*, maintains the fact that so large a number of physicians in active practice, are deficient in two of the most important branches of the art, viz.:—chemistry and pharmacy—too deficient to be safe,—for the lives of their patients and their own reputations.

He says that recently a second year student of one of Chicago's prominent medical colleges entered a drug store and wanted some "subnitrat of bismuth," at the same time asking the druggist "if it was necessary to have a bottle to put it in, as he did not know what it was."

A graduate from the same school prescribes sulphate of morphia in aqueous mixture with liq. potassæ. The druggist filtered out the precipitated alkaloid and the doctor got no effect from his morphia,—a fortunate thing for the patient that it was filtered as he would have gotten it all at one dose.

A professor in the same college ordered the following prescription:

R Ammon. Carb..... \mathfrak{ss}
Tr. Digitalis..... \mathfrak{ss} \mathfrak{ss} as
Strychnia Sulph..... \mathfrak{gr}
Elix. Simp. ad..... \mathfrak{ss}
M. Sig.—Teaspoonful every four hours, in water.

A very dangerous prescription, as the ammonium salt will precipitate the strychnia and active principle of the digitalis and the patient get an overdose—a bad example to set before his pupils!

Another professor in a prominent Chicago Medical College prescribed a mixture of ammonium carbonate and morphine sulph. in a cough mixture for a baby.

It was not learned whether the child survived or not. The best that the druggist could do was to put a "shake the bottle" label on.

The writer also noticed that several doctors prescribed one twenty-fourth of a grain of mercuric chloride in solution, given (internally) every hour, in a case of diphtheria. This was continued several days and nights—the child died!

THE LIBRARY TABLE.

BOOK REVIEWS.

Handbook of Insanity. By Dr. Theodore Kirehloff, of Kiel. Pp. 363. Illustrated with eleven plates. New York: William Wood & Co., 1893.

This is one of the volumes of "The Medical Practitioners Library." It is almost equally divided into a General and a Special part, the former giving the anatomical basis and the location of mental disturbances, the classification, importance and mode of action of the causes of insanity, and the signs, course, diagnosis, and treatment of mental disorders. The latter part treats of the simple mental disorders, and the mental disorders associated with permanent anatomical changes in the brain, or with general disease. The work abounds in clinical pictures which are faithfully drawn by a master hand. The descriptions of sufferers from mania, melancholia and paranoia are remarkably good. Their clinical histories, habits, methods of thought, writing and speech are accurately described in detail. The author strongly advocates the early removal of such cases to an asylum.

An interesting feature of the book is the introduction of the plates which are excellent reproductions of photographs of patients suffering from mania, melancholia, paranoia, dementia, etc.

Whilst this is a very interesting and readable book it is to be regretted that such words as "affects" and "concepts" should so often recur, and that "*wahnsinn*" and "*verruecktheit*" should remain untranslated.

Text-Book of Physiology. By Dr. Foster. Part V. Appendix.—*The Chemical Basis of the Animal Body.* By A. Sheridan Lea, M. A., D. Sc., F. R. S. Sixth edition. New York: Macmillan and Co. 1893. Price \$1.75.

The Appendix has been written upon the same lines as in previous editions, except it has been somewhat enlarged.

The term "Appendix" as applied to this volume is misleading, for in reality it constitutes a treatise on the chemical substances occurring in the animal body.

Dr. Lea, who is the author of this work, deserves great credit for a clearness and precision of definition which is not the usual characteristic of works on this subject. Chemists, physiologists and practitioners will welcome this new edition not only on account of its completeness but because it will give them a work that is fully abreast with the times.

Transactions of the American Orthopedic Association. Sixth Session. Volume V. Philadelphia: Published by the Association, 1893.

This association has an active membership of forty-six, together with six Honorary, and nineteen Corresponding Members.

At the meeting held at New York City in September last (1892), thirty-four papers were read and discussed.

Among the more important were those of Dr. Steele, of St. Louis, on "Plaster-of-Paris in Orthopædics"; "An Easy Way to Hold the Operated-on-Club-foot in the Corrected Position while the Plaster-of-Paris Splint Sets," by Dr. Sherman, of San Francisco; "At what Age should the First Treatment of Congenital Club-foot be Instituted?" by H. Augustus Wilson, Philadelphia; "Comparison of Operative Methods in the Treatment of Club-foot," by Dr. Willard, Philadelphia; "Spondylitis of Second Cervical Vertebra, with Report of Cases and Instrument for Treatment," by Dr. Reginald Sayre, of New York.

Mineral Springs and Health Resorts of California. By Winslow Anderson, M. D., M. R. C. P. Lond., M. R. C. S., Eng. San Francisco: The Bancroft Company. 1892.

This work received the Annual Prize of the Medical Society of the State of California in 1889. It contains in addition to the description of the mineral springs and health resorts of California a complete chemical analysis of every important mineral water in the world.

The work contains the names of over two hundred California springs with about one hundred analyses, and two hundred analyses of all the famous springs in America and abroad. Short sketches have been introduced on the fertility and natural productions of California; its historical account, climate, comparative thermometric tables, rainfall, etc., from which it will be seen that the golden shores on the Pacific compare favorably with all the most noted health resorts, whether they be found in the Old or in the New World.

This work abounds in matter that will be read with the greatest interest by students interested in the study of Balneotherapy.

Price List. Parke, Davis & Co., Detroit, Mich.

A compact, handy book of 200 pages, of value to all physicians and surgeons. Not only are prices and method of putting up the goods given, but there is a great deal of useful information contained in the volume.

Capitan (*Repertoire de Pharmacie*) recommends the following treatment for burns. Carefully wash the burned region with borie water or a $\frac{1}{2}$ to 1000 sublimate solution. Cauterize such spots as may be at all ulcerated, with a red hot needle. Cleanse the spots thoroughly and sterilize the hand, with which to apply the following:

R Salol 4. 0 (31.)
Cocain. mur. 0.25 (gr. liiss.)
Vaselin. 30. 0 (31)

Cover with moist sublimate gauze. Over the gauze place absorbent cotton. Change this dressing every two or three days. Meanwhile keep the cotton moist by dropping sublimate solution upon it. If the burns have not suffered previous infection, they heal under this treatment without suppuration or pain.

CURRENT LITERATURE REVIEWED.

THE CHICAGO MEDICAL RECORDER.

The February number contains an article by Dr. Frederick C. Shaeffer on

Skin Grafting on the Cranium,

with the report of an interesting case. The patient, a mill hand, was caught by her hair in a rapidly revolving shaft and completely scalped—the entire skull being laid bare and the pericranium removed in places. Skin grafting was resorted to, 4,500 grafts in all being planted, of which the patient supplied 1800. From the reporter's experience the grafts should be placed close together, thereby forming a stronger skin than when planted farther apart. Dermal grafts with a few fibres of connective tissue form a smooth, soft, pliable skin presenting the characteristics of normal integument; the follicles are preserved, making the patient more comfortable and the new skin more durable. Autodermal grafts are more reliable than heterodermal grafts, providing the patient is healthy; while grafts from a person near the patient's own age give better results than those from one much older or younger. The paper is illustrated with cuts from photographs of the patient taken in different stages of the grafting process.

Dr. James H. Etheridge presents a

Report of Laparotomies

performed during the twelve months. There were in all one hundred and twenty-one operations with fifteen deaths. Celerity, he says, in abdominal operations is most desirable in the avoidance of shock from exposure of the abdominal cavity. Much benefit was derived, he thinks, from attempts at allaying existing active inflammation by rest in bed, laxatives, diuretics and the use of a protracted hot douche, two to four times a day, previous to the operation. The douche should be as hot as the patient can bear, and the improvement of tubal and ovarian disease under its influence was most marked. Pain and tenderness disappeared and, in some cases, total ankylosis of the pelvic organs gave way to a considerable degree. The reporter urges perfect and absolute cleanliness and the use of as few instruments as possible, because of the increased labor of keeping them aseptic. The report concludes with a detailed account of a few of the more important cases. A table of the diseases for which operation was performed is also included.

Dr. Chauncy F. Chapman, in an interesting article on

The Bichloride of Gold Treatment of Dipomania,

describes the course of the Keely Institute. He points out the fact that, gold having a valence of one or three, a bichloride is a chemical impossibility. He gives the formulae of the injections used, the principal ingredients of which are strychnia and atropia combined with a small amount

of the chloride of soda and gold. Strychnia is recognized as a valuable neuro-tonic, while the atropia seems to decrease the appetite for alcohol. With the patient under the full influence of atropia, alcohol is painful to the dry fauces and mouth, and the systemic effects are no longer pleasant, as the author confirmed by experiments on himself. The method of using the injections at the "Institute" are described in full; and should a patient prove refractory and continue the use of alcohol whiskey in spite of the atropia, he is given a hypodermic injection of apomorphia, without his knowledge, which, the writer says, never fails to produce the desired loathing for alcohol. He calls attention to the very large doses of strychnia employed. He has "exhibited hypodermically one-eighth grain given every two hours, by the mouth, until eight doses have been given in the day. This maximum dose is gradually but rapidly reached, beginning with one-thirtieth grain hypodermically, until the effects of the drug becomes manifest, when the dose is gradually decreased." The strychnia is often pushed till muscular tremor is pronounced and in some cases antidotes have to be employed, chloral hydrate being habitually used for this purpose. The treatment should also include baths, plain, turkish or electric, massage, good feeding, tonics etc. He believes that the treatment is valuable when properly used; but as it is carried out in the Institutes, with the administrators ignorant of the drugs they are exhibiting, it is dangerous.

Dr. A. Belcham Keyes presents some remarks on

Simple Typhoid,

outlining the treatment as pursued at the Cook County Hospital, where one hundred and six cases were treated during three months, with eleven deaths. Coffee and alcoholic stimulants were used in small quantity, and seemed to dogood in the later stages of the disease. "Sponging was found sufficient to reduce the temperature in all cases where it was possible. Phenacetine, antifebrine and antipyrine are considered a menace to permanent improvement and only a means towards a temporary reduction of temperature at the expense of cardiac force where the temperature yielded but slightly to sponging." Calomel as an abortifacient of typhoid is regarded as of doubtful value. Strychnia was used with good effect, lessening the restlessness and jactitation, thereby preserving the patient's strength. Quinine, in six grain doses every four hours, was the only antipyretic given. Salol, nitrate of silver, and carbolic acid apparently gave good results in limiting the tympanites, "but it is impossible to believe that any antiseptic effect was produced on the lesions of Peyer's patches." Turpentine with opium did good service in hemorrhage. Tincture of iron and glycerine in large doses were given, in some cases markedly shortening the dry stage.

Dr. Robert S. Nourse reports a case of "Cerebral Abscess" in which there was an area of tenderness complained of in the right temporal region on a level with the top of the right ear and one inch in front of the same; there was also paralysis of the left side. A trephine opening was made six or seven centimeters above and one and one-half centimeters in front of the external auditory meatus. On introducing a grooved director into the brain to the depth of two inches, a drachm of thick fetid pus flowed out. The brain opening was enlarged and a drainage tube introduced. The patient did well for a time but died on the tenth day. At the autopsy a softened area was found around the inferior extremity of the fissure of Rolando and, on tearing this away, an encapsulated abscess was discovered containing three and one-half ounces of thick fetid pus.

The remaining paper is by Dr. John A. Robinson, on "Laryngeal Paralysis."

THE PRACTITIONER.

The February issue of *The Practitioner* gives the first place to an article on "The Action of Drugs on the Bladder and Genital Organs" by Dr. Lauder Brunton. The subject is considered under three heads. (1), The action of Drugs on the Motor Power of the Bladder. (2), The Action of Drugs on the Urethra. (3), The Action of Drugs upon the Genital Organs.

Dr. Croom in a paper on

Kolpocystotomy in Relation to Chronic Cystitis in the Female.

is of the opinion that few if any conditions short of malignant disease are less amenable to treatment than chronic cystitis in the female. Under the head of local treatment of cystitis he strongly urges against the persistent use of opiates and other anodynes, with a view of relieving the habitual suffering of this disease. "Far from relieving," he says "they aggravate the patient's distress, interfere with her secretions, disorder her digestion, and render her already distressing condition an absolute hopeless one." The treatment offered is a purely local one; the principles on which the treatment is to be conducted are two. First, antiseptic treatment of the mucous membrane; second, continued rest of the hyper-trophied muscular coat.

Bromoform in Whooping-Cough

is the subject of Dr. Burton-Fanning's paper. Bromoform is a colorless oily liquid, with an ethereal smell and sweet taste; it is insoluble in water, and, after many experiments conducted by Mr. Balls, it was most conveniently prescribed thus:

Bromoform.....	mi.
Pulv. Tragacanth Co.....	℥ss.
Syrup Simp.....	℥ss.
Aque, ad.....	℥ss.

This forms a pleasant mixture, and the bromoform is well suspended. The appropriate dosage of bromoform is as follows: mss. for children under one year; m i. up to three years; m ii. up to six years—thrice daily

to commence with. If necessary, these doses may safely be gradually increased till they are doubled. Bromoform is decomposed by exposure to light and becomes brown from liberation of bromine, when it must on no account be used. The results have been uniformly gratifying. Usually on the second day of treatment the number of paroxysms are noted as fewer, falling often from about one an hour to one or two a day, and in mild cases ceasing altogether. The attacks are also shorter and less violent; vomiting *always* ceases. Those cases which have epistaxis or other hemorrhages lose these symptoms, expectoration becomes more easy, and bronchitis gradually disappears. Among the cases quoted the following one may be taken as a typical one:

A. L., 2½ years, has had whooping-cough for ten days, having a paroxysm about every hour, accompanied by vomiting and expectoration with streaks of blood; his "breath stops," and once he fell down during an attack. Bromoform (m i.) was ordered three times a day, and on the second day he had only two paroxysms, and no vomiting or stoppage of breath. Afterwards he had none until at the end of a week; belladonna was substituted for the bromoform, when the whoop returned, again, however, to disappear on resuming bromoform, the use of which was continued for five weeks. It is claimed that the drug is of specific power against the main symptoms of whooping-cough—the paroxysmal cough, on which depend the chief dangers of the disease. The doctor says he cannot satisfy himself that the duration of the illness is materially shortened, the average length of the paroxysmal stage in his cases being thirty-one days, but during this time the patients were free from the characteristic cough and its attendant miseries, though these all returned at once, if the bromoform was discontinued within four weeks. The remedy is sufficiently specific in its action to be of the greatest use in diagnosis. The doctor commends it for trial in this common, but by no means trivial, affection of childhood.

"Laparotomy in General Surgery" by Dr. Banks, of which we will speak elsewhere, and "Arterial Tension in Angina Pectoris, and its Therapeutical Indications" by Dr. Williams concludes this number.

INTERNATIONAL MEDICAL MAGAZINE

for February contains few articles which call for special attention—nine papers; four of these were read before the American Climatological Association last June.

Dr. Tyson considers at some length. "The Primary or Essential Anæmias"—(1), chlorosis; (2), progressive pernicious anæmia; (3), leukaemia; (4), lymphatic anæmia; (5), splenic anæmia, or splenic pseudoleukaemia. The paper contains nothing that is new, it is simply a review of the conditions constituting the anæmias and the management which modern clinical experience has determined to be the most successful.

Dr. Crother's paper

Medical Jurisprudence of Alcoholic Inebriety

is a carefully prepared study of this subject. Some of the facts which have been presented may be grouped as follows:

1. The number of inebriates which come under legal notice is steadily increasing. The methods of treatment are practically failures in every sense.

2. Alcohol is a paralyzant on body and brain, acting upon the senses first, then upon the reason, and finally causing palsy of the higher brain-centers.

3. Many forms of alcoholic injuries occur, of which *trance*, *epilepsy*, *paralysis*, *traumatism*, *insanity* are common.

4. Heredity, training, and surroundings are active forces which lead up to alcoholic excesses.

5. The continuous use of spirits numbs and breaks up the higher brain-centers, and all persons who use alcohol in excess have lessened and impaired responsibility.

6. The natural tendency of all persons who are damaged by alcohol is to lawlessness and crime.

7. The error of regarding all persons as sane who continually poison themselves with spirits results in an increase of crime and the production of a degenerate class. Courts and juries judge of these cases from theory and not from facts.

8. Such cases should be examined by a medical commission, and their conclusions should be final in the evidence.

9. Military hospitals should be built from the license fund and supported by the labor of inebriates sent to it for life or a period of years.

10. All inebriates should be regarded as insane and irresponsible and should be forced to go into military hospitals. They should be treated in the same way as cases of infectious disease are treated.

11. The medical jurisprudence of inebriety promises more for the solution of the alcoholic question than any other means.

THE GLASGOW MEDICAL JOURNAL.

The February number contains nine articles. Of these, we mention, by title, those of Dr. Fraser "On a Case of Sensory Aphasia or Word Deafness, with the Clinical and Pathological Record; with a Case of Functional Auditory Amnesia;" Dr. Marshall "On a Case of Multiple Vascular Nævi, with subsequent Disappearance of many of them;" Dr. Monro "On a Case of Diffuse Gangrene of the Left Lung, due to the Unsuspected Presence in the Bronchus of a Temporary Molar Tooth, which had Accidentally become Dislodged while Patient was under an anæsthetic."

Dr Macphail has a paper on "A Note on Statistics of Enteric Fever." On this subject the only reliable general statement seems to be that the natural variation in enteric fever is so great as to detract very much from the value of statistics as to the results of treatment.

In "Clinical Memoranda," reported by Dr. Jack, on Selected Cases from the Wards of Dr. McCall Anderson's patients, calls attention to (1) "A Case of Pernicious Anæmia—Recovery Under Arsenic—Unusual Complication Terminating Fatally—Post-Mortem Examination;" (2), Case of Cancer of the Lung, complicated with Secondary Cancer of the Liver."

Dr. John Dougall presents "Three Cases from the Wards of the Glasgow Royal Infirmary." (1), Ergot in Diabetes Mellitus; Patient, male; aged 21; specific gravity of urine 1035, acid, and contained twenty-eight and a-half grains of sugar per fluid ounce. During the first six days after admission the quantity of urine passed averaged 228 ounces per day, with a mean specific gravity of 1040. On one of these days the urine measured 310 ounces. The sugar passed daily was close on fifteen ounces. The treatment consisted of a regulated diet, the only medicine given was half a fluid drachm ext. ergot liq., thrice daily. In a week after admission his thirst was entirely gone, the quantity of urine had fallen to about sixty-five ounces daily, specific gravity unchanged. Thirty days after the ergot was commenced it was increased to one fluid drachm, thrice daily, which was continued for two months, then increased to one and a-half fluid drachms ergot, which was continued until he left the hospital, two weeks later, his condition then being as follows:

STATE ON ADMISSION.

Weight, 8 stone, 12 pounds.

Very weak.

Great thirst.

Much hunger.

Urine, 228 ounces daily.

Sugar, passed daily, 15 ounces.

Skin, harsh and dry.

STATE ON LEAVING.

Weight, 9 stone, 2 pounds.

Much stronger.

No thirst.

Moderate appetite.

Urine, 64 ounces daily.

Sugar, passed daily, 4.9 ounces.

Skin, soft and moist.

(2), Binioidide of Mercury in Traumatic Eclampsia.

(3), Case of Poisoning with Bromide of Potassium.

A special point in this case is the lengthened period—three weeks—during which the bromide exerted its physiological action. The presence of bromides, however, have frequently been found in the urine two weeks after the last dose had been taken, and Rabuteau, under similar circumstances, has seen its presence (bromine) persist for a month, thus showing that the bromides are slowly excreted. The symptoms in this case held as due to bromism were the general cutaneous anæsthesia; muscular relaxation; total abolition of the reflexes; lowered temperature, respiration, and pulse; the great somnolence. It has been said that in some cases of bromism the pupils are dilated and uncontractile,

and that the color of the skin and face is unchanged. In this case, however, the pupils were normal, while the face was livid. This latter condition was, no doubt, caused by the reduced cardiac action, and respiration preventing due "aeration" of the blood; hence also the subnormal temperature.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY.

The February number contains a description of "A Convenient Ophthalmoscope" by Dr. Howe, of Buffalo. The instrument consists of a concave mirror twenty-eight millimeters in diameter, behind which is a revolving disc containing five plus and five minus glasses, with one opening. A convex lens of the same diameter as the mirror and disc completes the instrument which is said to be "simple, compact and as useful as the ordinary refraction ophthalmoscope."

This is followed by a translation of Gullstrand's paper on the "Objective Method of Diagnosis in Paresis of Ocular Muscles" to which we have elsewhere referred.

Under the head of "Selections" is a contribution by Dr. Seguin on

Eye-Strain and Its Relation to Cerebral Hyperæmia.

The writer commences by saying eye-strain, more especially that due to paresis or original weakness of the third and sixth cerebral nerves, produces many symptoms besides cephalalgia and migraine which have lately received so much intelligent attention. "The chief of the symptoms are: Occipital, sub-occipital and occipito-cervical pain and distress; a sense of stiffness in the occipito-cervical region, ('at the base of the brain,' as is commonly said,) feeling of fullness, pressure or lightness in the head; sensations of numbness or of formication in the scalp; varying degrees and forms of dizziness (but not true vertigo); inability to read, write, sew, converse, sit at table, to go on the street or into rooms, and even to 'think' without supervention of aggravation of symptoms; fear of certain places; insomnia; emotional attacks; pains (differing from migraine) in various parts of the head; and, later, also the multiple symptoms termed neurosthenia." Such symptoms, the writer believes, have too frequently been grouped under "such wholly theoretical diseases" as "cerebral hyperæmia" and "congestion of the base of the brain." Dr. Seguin prefers to term them "Cephalic paræsthesia." He offers a preliminary partial grouping of these symptoms. The majority of cases presenting such symptoms are, he thinks, "cases of eye-strain, exhaustion and hyperæsthesia resulting from the persistent use of weak neuro-muscular organs, more especially the third and sixth nerve apparatuses." After mentioning that some cases of cephalic paræsthesia are due to dyscrasic conditions, more especially lithæmia, oxaluria, latent gout, etc., and that lightness in the head and deficiency in power of attention may be due to anæmia, cardiac disease, organic cerebral disease, etc., he returns to a fuller considera-

tion of the "Symptoms of Paresis (Insufficiency) of the third and sixth nerves and attacked muscles."

LIPPINCOTT'S FOR APRIL.

Is mainly devoted to Columbus and the Exposition. The complete novel, "Columbus in Love" is by George Alfred Townsend ("Gath"), and narrates fully and feelingly the great discoverer's relations with Beatriz Enriquez. The leading person of that day in Spain, and some of the chief scenes, are introduced,—Isabella, Ferdinand, the court, the bishops, the fall of Granada, the Inquisition, as well as those most closely associated with the Genoese,—the faithful Nunez, the good prior of Rabida, Pinzon, the sailors, and many more. The novel is fully illustrated.

William Ingleheart tells "What the Publicity Department did for the Columbian Exposition." A portrait of Major Moses P. Handy accompanies this article.

Julian Hawthorne attempts "A Description of the Inexpressible,—the buildings of the fair; and Frederic M. Bird characterizes "The Religion of 1492" and that of Columbus.

The non-Columbian papers include one by Edgar Saltus on "Sappho;" an installment of M. Crofton's "Men of the Day," covering J. A. Froude, Gounod, Dr. Farrar, General Howard, and Congressman Holman; and an illustrated tale by Annie Flint,—"Abraham's Mother."

ARCHIVES OF PEDIATRICS.

Dr. Rotch begins a paper in the February number on "The Value of Milk Laboratories for the Advancement of our Knowledge of Artificial Feeding." Dr. Osler offers a paper "On Dilatation of the Colon in Young Children" which is merely a reference to a number of cases already reported, together with a few remarks on two children coming under his observation. "Treatment of Bronchial Catarrh in Infancy" is the subject of a very interesting paper by Dr. Carmichael. "Clinical Memoranda" containing seven articles; and two clinical lectures, one by Dr. Jacob, the other by Dr. Wharton is the full table of contents of this number.

Dr. Hallister in speaking of the causes and treatment of dropsical effusions, states that: The more obvious causes of dropsy may be enumerated as follows:

First. In cases of hydræmia where, in proportion to its other constituents, the watery portion of the blood is largely increased.

Second. In cases where by imperfect nutrition the walls of the capillaries are weakened.

Third. A more common cause—by reason of increased blood pressure, and

Fourth. A still more common cause—impediment of the venous circulation, and consequent congestion of the capillaries upon which reflex pressure is exerted.—*Chicago Clin. Rev.*